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Photometry in Connexion with Building.

THE measurement of daylight and of artificial light in buildings is a matter with which architects are directly concerned, and in recent years so many simple forms of portable photometer have been devised that it is now possible for architects to personally make such measurements without previously devoting very much time to the study of the properties of light. When providing new lighting installations in any type of building a few photometric observations made in various parts of the building will afford more reliable evidence concerning the quality of the lighting than can be obtained by observations made without the aid of an instrument. In cases of dispute concerning obstruction of ancient lights, moreover, a photometer is very useful, for instead of relying upon general statements to the effect that substantial loss of light will result from the erection of a proposed building it is possible to determine precisely the amount of damage.

Several London firms now manufacture portable photometers specially adapted for the use of architects and borough engineers and surveyors. Some of these instruments somewhat resemble a photographic hand camera in appearance, and may be mounted on a tripod if desired. They are equally available for the measurement of daylight, gaslight, or electric light. For testing lamps in the public streets an instrument which fits into a box mounted on wheels is commonly used, so that the photometer can be wheeled close to the lamp to be tested.

Those who are familiar only with the old form of photometer, which consists of a graduated bar provided with a paper disc supported in a sighting box which runs on wheels along the bar, will find the modern portable photometer much less cumbersome. The modern standard of light is an electric glow lamp fed by a portable battery, instead of a pair of candles burning upon a balance.

Measurement of the candle-power of a lamp is based upon the fact that "the quantity of light falling directly upon a given surface varies inversely as the square of the distance of the surface from the light source." Thus, a lamp which will throw light of 16 candle-power upon a surface 1 ft. distant from it will throw light of only 4 candle-power upon a surface 2 ft. distant from it. In most photometers the intensity of light is determined by allowing the light from a lamp of known candle-power to fall upon one side of a white disc or screen, and the light from the lamp to be tested upon the other side of the screen. The position of the screen is altered until the brightness of the light upon each side of the screen is the same. The distances from the screen of the standard lamp and of the lamp to be tested are then ascertained, and the candle-power calculated; or the candle-power of the tested lamp is obtained directly by reference to the indicator attached to the photometer.

Instead of determining the candle-power of some particular lamp or lamps, it may be desired to ascertain the intensity of light which is falling upon some surface in a room, such as the top of a desk or table. The unit of illumination is a candle-foot. This is the quantity of light which would be thrown upon a surface by one standard candle placed at a distance of 1 ft. from the surface.

The illumination of rooms was discussed by Professor Silvanus P. Thompson in his recent presidential address to the Illuminating Engineering Society. According to Professor Thompson it is impossible to read upon a surface receiving an illumination of only 1-10th candle-foot, and difficult and fatiguing with an illumination of 1-5th candle-foot. For comfortable reading an illumination of 1½ to 3 or 4 candle-foot should be provided. Of course, the size of the print affects the matter, but, generally speaking, an illumination exceeding 3 candle-foot is not required upon the page of a book, and if the illumination exceeds 8 candle-foot the glare upon the page is objectionable. By day, says Professor Thompson, on a writing table placed near a north window, or near any window not receiving direct sunlight, the illumination may exceed 3, and may even attain 4 or 5 candle-foot. He objects to the term "candle-feet," which is sometimes used to denote a number of candle-foot, but we do not know why he does not adopt the expression "foot-candles" which is also commonly used.

Professor Thompson further suggests that all educational authorities should insist that no seat in a schoolroom should receive less than 1½ candle-foot illumination, and adds "that they must not depend on purely architectural rules about heights of windows or areas of window-space." We do not know what peculiar form of building the Professor had in mind when he delivered his address, but we think that satisfactory illumination can be obtained in most descriptions of building without violating any of the canons of architecture.

Hitherto architects have not devoted much attention to photometry, but its practical utility is gradually becoming more generally recognised, and in the future architectural students will be expected to acquire some knowledge of this science. It is true that most of the firms which manufacture photometers

will also undertake photometrical investigations for architects, but the work has become so greatly simplified by recent inventions that all architects who have the opportunity should acquire the art of making measurements of light.

NOTE.—Readers interested in this subject should also study the paper on "The Measurement of Illumination," recently read before the Society of Architects by Mr. Waldram, and reported in the issue of the *Builder* for January 22.

THE PARIS FLOODS AND BUILDERS ANCIENT AND MODERN.

By E. R. ROBSON, F.S.A.

THE correspondent of the *Morning Post*, writing from Paris on the 3rd inst., contrasts ancient builders with modern. His words, evoked by the appalling floods from which the French capital is yet suffering, deserve a more permanent place than the columns of a daily paper, also a more architectural setting. He says:—

"One thing that the floods have demonstrated beyond all question is the superiority of the ancient builders over the modern. The only bridges for which not even a minute's anxiety was felt were the Pont Royal (1685) and the Pont Neuf (1578-1604), each several centuries old, and if the Pont Royal was closed for a time to traffic it was only because the roads which led to it were flooded.

The Pont Neuf was never flooded, and those who saw it will not easily forget how its bold spans rose from the angry river with all the contempt of security, while the yellow water rushed round its piers, drowning the little square below the statue of Henri IV. to the very tops of its lamp-posts. Everywhere the contrast between the old and the new was the same. The Petit Palais and the Grand Palais, the Hôtel de Ville, and the Orsay Station were all flooded feet deep in water. The building occupied by the *Journal des Débats* in the rue des Prêtres, St.-Germain-l'Auxerrois, which dates from the time of Henri IV., successfully resisted the penetration of the water for nearly a week, though it stands only a few yards from the river."

Although modern building science has outstripped the old in several directions, has introduced enormous changes from the use of iron and steel constructionally, invented numerous labour-saving appliances, has shown how to warm and ventilate buildings, and how to do things quickly, the contrast drawn with the old deserves the general attention of architects. For it not only condemns the hurry of modern ways, but suggests that we do not exercise the commonsense which our forefathers possessed.

I should like to note two instances affording contrasts between ancient and modern sense. Both are from bridges—one in Italy, the other in England.

The first is the splendid bridge built by the Scaligers at Verona at the end of the XIVth century, which spans the river Adige in three arches of different sizes, of which one, viz., that nearest the castle, is made very much the largest because the river curves and sends the flood towards that side. I saw it during the exceptional floods which, a few years ago, destroyed so many bridges in North Italy, to the dislocation of communications, and observed how well the great arch served its purpose, careless of the surging mass of water sent suddenly down from the Alps above. Turning to look down the river, I saw that, a quarter of a mile away, a modern bridge, of many little arches all alike, had been overturned by the same water, and its white marble portions seemed wrecked as though by an earthquake.

Here was a contrast indeed! For the modern bridge had not to deal with a curved stream nor a sloping roadway, like that of the Scaligers'.

The second instance is that of the Framwellgate Bridge over the River Wear, at Durham, familiar to the photographer. Built in the XVth century, its great arches, of perhaps 80 ft. or 90 ft. span, are quite as fine a constructional triumph as the great arch at Verona. However wide the arches, the bridge itself was very narrow as the main thoroughfare from the market-place of the City to the turnpike at the west. The widening took place in the sixties, the added portion exactly following the old. It was, however, forgotten that the temporary wooden centring necessary in constructing arches of wide span should be removed with extreme caution, wedge by wedge, and the greatest deliberation, so as to allow the stonework to take its final bearings in the most gradual manner. Accordingly, as soon as the widening was completed the centring was struck, and all the new portion of the bridge fell shortly after.

I doubt whether the original builders had a similar experience as to the first part of the bridge. And I claim another contrast between modern thoughtlessness and the practical commonsense of men living more than 400 years before.

Old bridges everywhere receive less attention than they deserve. Guide-books rarely mention them. The rambler sketches them without a thought of their history. Yet they are always as interesting as other buildings of the same period. And they are almost always studies in commonsense.

Apart from the subject of bridges, there have been many object-lessons which bring into striking contrast old work and modern methods.

For example, how the ancient central spire of Chichester Cathedral was made to settle down like a scuttled ship at sea by a modern "restorer!"

LABOUR EXCHANGES.

THE operations under the Labour Exchanges Act are now well commenced. On the whole the Act has met with approval, but the lack of sustained criticism must not be taken to mean that the progress of its working will not attract continual attention. If the scheme fulfils its object—that is to say, if an organisation of labour is created out of what is now chaos, the Act bids fair to be in the future quite as important as the existing Factory Acts. From the strictly official point of view, each requires administration from a different standpoint. For instance, the Labour Exchanges Act is not one in which any powers of compulsion are embodied. Both masters and men are in entire liberty to make use of it or not. Therefore, the attitude of the officials concerned with it must be full of persuasion and quite conciliatory. The success of such an Act must depend upon its inherent qualities. It is another matter with the Factory Acts. These deal with abuses which are apt to grow up in the relationship between the employment of capital and labour. The inspectors who carry out the provisions are undoubtedly both persuasive and conciliatory, but in the event of these modes of action failing, another lies behind in which a magistrate is a deciding factor. The value of these Acts is not one to be accepted or declined by those affected, the value is estimated by a Parliamentary majority, and, until a repeal, it remains enforceable.

In London some twenty exchanges have now been opened, but a perusal of their addresses forces into notice an important detail. The building trade of London, probably the principal trade with which the exchanges will deal, has been, and probably will be for some years, largely congested in Westminster and Marylebone, and the eastern portion of Chelsea. In this area, to which may be added Holborn and part of the City west of the Bank, not a single exchange has been established. Surely this cannot be an oversight, or hardly an error of judgment.

Whatever the reason, an early alteration would be wise. The building trade employers have been approached through their organisations and their help solicited. We may add that it has been freely given. If, therefore, this trade is to join in any advantages that may accrue, an early opportunity should be taken to establish one or two exchanges in the districts named. The general foremen, who will act for the employers in these matters, cannot be expected to put themselves into communication with outlying offices; it would be more to their advantage if they could personally select their men. For this purpose a neighbouring exchange is necessary. Suitable premises should not be difficult to find, although rents will necessarily be higher than in the suburbs.

NOTES.

Indian Art.

THE paper by Mr. Havell on "Art Administration in India," and the long discussion on it in speeches and letters, contained in the last issue of the *Journal* of the Royal Society of Arts, is of considerable interest, and the subject no doubt of much importance. But we think Mr. Havell's enthusiasm for Indian art has carried him too far. He is perfectly right in his criticism on the manner in which we have injured and checked the course of native applied art in India by the ill-judged attempts made at first to South-Kensingtonise it, so to speak; a mistake fully recognised now by all who have any understanding of the subject, and which it is apparently not too late to undo. But when Mr. Havell goes on to speak of the Fine Art of India as something to be recognised and assisted, or at all events left free to develop itself on its own lines, we can only say that we know of nothing in native Indian art worth calling Fine Art; nor, it appears, does Sir George Birdwood, who knows as much of Indian art as any one living. Native Indian sculpture and painting are grotesque and barbaric. What is valuable in Indian art is simply the artistic method of making and decorating objects for use—in other words, applied art. They have never soared to an ideal or creative art of any intellectual value

And as to architecture, though we have certainly no sympathy in general with the work of the P.W.D., as it has been hitherto, we very much doubt whether native Indian architects would ever produce buildings, public or private, which would be entirely satisfactory to Europeans. What can best be done in Anglo-Indian architecture is to erect buildings planned on European lines, but with detail suited, æsthetically and practically, to the Indian climate and materials. Successful attempts of this kind have been made, and that is the line which promises best for the future.

London Administration. It seems very unfortunate that the administration of the local government of London should be made the subject of party politics, but there are already indications that this will be the case at the forthcoming elections of the London County Council, and that any impartial consideration of what is best for this gigantic community—how housing schemes are best to be inaugurated and carried out, how economy and efficiency are to be combined in relation to improvement schemes and lines of traffic—is again to be lost sight of in party strife and the struggle between those whose ideas tend to socialism and those who desire to see individual effort and enterprise encouraged. For the administrative county as a whole the average rates for the past three years show a reduction of a half-penny in the pound. This is satisfactory, but the reduction in the rates is not the only test of efficient management, as the amounts of loans and capital commitments have also to be considered. The charge for education on the rates also obscures the issue and enables party capital to be extracted from the figures. In times of depression, such as the past three years, economy must be studied in local government as it should be in other departments, and progress should be less insisted upon. Increased rates and increased expenditure in such times are to be deprecated even when the expenditure is incurred for objects which in prosperous times might in themselves be desirable. The administration of the County of London involves considerations far above party politics, and those who have the real interests of London at heart must regret the party spirit now in evidence at the elections, which only serves to obscure the real and important issues.

Afforestation. Our readers will note with interest that operations on a greatly increased scale of magnitude are about to be undertaken during the present year on the estate purchased by the Government in Argyllshire. Last year after preparation of the ground some 45,000 trees were planted, and it is announced that the number contemplated by the present programme includes no fewer than 690,000 trees comprising common spruce, Scotch spruce, Douglas spruce, Silka spruce, larch, and silver fir, the category being completed by a large number of spruce plants from Germany. This is a very satisfactory sign, which, it may be hoped, will prove to be the forerunner of still further activity in the cultivation of British grown timber for the home market. Very little is heard just now of the coming timber famine, but we may be perfectly sure that the conditions which combine to render the output of the world's forests a steadily diminishing asset are not more favourable than they were a year or two back. Consequently there is every reason for encouraging the self-help movement in the direction of tree cultivation.

Flood Protection. In almost every country of the world cities and towns have grown up in the vicinity of rivers and streams, but it has not always been practicable to secure sites at sufficient elevation above water level to provide immunity from flood in times of heavy rain. Cities spread out on convenient level flood-plains have in course of time clustered around the original low-water channel, the result being that in seasons of flood the valley is partially dammed by the city, and if the water rises to unusual height a more or less serious inundation is inevitable. In America the question of commencing flood protection works is beginning to attract attention. Communities such as Pittsburg, Kansas City, and Sacramento are already considering the problem in earnest, although practically no flood protection work is being done to-day in the United States. The great obstacle there, as in the old world, is the enormous cost of carrying out any comprehensive and really effective scheme for rectifying the fatal mistake of blocking up river valleys by huge collections of houses. The point brought so unfortunately into prominence by the floods in France, and emphasised by experience in a new country like the United States, is one deserving attention by the founders of new communities destined in time to become towns and cities.

London Main Drainage. By the recent settlement of the contract for an additional low-level sewer on the south of the Thames the last link in the scheme for the completion of the main drainage works of the metropolis has been put in hand. Of course, the future may bring fresh requirements, but these we need not anticipate at the present time. The new conduit to which reference is here made will be officially described as Southern Low Level Sewer No. 2. Extending from Battersea to Deptford with the length of some eight miles, the sewer will pass through waterlogged soil, necessitating the employment of compressed air for the conduct of tunnelling work. Taken in connexion with the older main drains, the duplicate Southern Outfall Sewer, the new High Level Sewer, and various recent sewers and pumping-stations for storm water disposal, the second low level sewer is seen to constitute only a small portion of a vast network, which, like the corresponding system on the other side of the river, represents an engineering achievement of the highest order, deserving far more grateful recognition than is accorded to it by the average Londoner.

Proposed Forth and Clyde Canal. At the last meeting of the Royal Scottish Society of Arts Mr. David A. Stevenson discussed at length the features of the ship canal proposed by him for connecting the rivers Forth and Clyde. At first sight it might appear that the enlargement of the existing barge canal would be the most natural course for adoption, but owing to the prohibitive cost of such an undertaking Mr. Stevenson recommends the construction of a new channel from Alloa, first along the valley of the Forth, then entering the valley of the Endrich by a cutting, and passing into Loch Lomond. From Tarbet on that lake a cutting of 1¾ miles would open up Loch Long, giving direct access to the Clyde. The cost of the undertaking would be something like 24 millions, and we are not at all sure that any financial company or any combination of local authorities will feel inclined to find the money without a Government guarantee—in itself a somewhat doubtful contingency. The saving of distance from various ports to Glasgow would be very considerable, that being a point which indicates the preponderating interest of the commercial capital of Scotland in the project. From the strategical point of view the canal project deserves the support of the Admiralty, particularly as a means of direct communication between the naval base at Rosyth and the West of Scotland.

A Sanitary Discussion at Hull. At the last meeting of the Hull City Council there was an animated discussion on a proposal of the Sanitary Committee to adopt certain sections of the Public Health Act Amendment Act. An amendment to adjourn the matter until specific reports had been prepared and issued to members of the Council was defeated by the somewhat narrow margin of thirty-one votes to twenty-four. The mover of the amendment opposed the proposal on the ground that, if adopted, it would give the Sanitary Committee power to compel owners of all property in the city to convert their privies into water-closets, and that the cost of this alteration, and of the work incidental to it, would be 500,000*l*.—namely, 250,000*l*. for the ratepayers, and 250,000*l*. for the property owners. This estimate was received with expressions of amazement. Whether it is even approximately correct or not we cannot say, but if the alteration necessitated entirely new and separate drains on modern lines for each of the 14,000 or more house now without water-closets, the estimate for the property owners might not be very far wrong. Nearly 12,000 of the houses are, however, without secondary means of access, and for the greater part of these it would probably be possible to construct "combined drains," by which the cost would be very much reduced. It is quite right that the financial aspect of alterations of this kind should be carefully considered, but the question of public health is of greater importance, and if—as we believe—the water-carriage system, properly carried out, is for towns less dangerous to public health than the best practicable conservancy system, the issue ought not to be long in doubt. For more than seven years the matter has been debated in Hull; surely the time has come for action.

An Engineer's Estimates.

It is often said that architects and engineers' estimates are always too low. This, like so many other general statements, is false, and yet may be nearer the truth than the converse statement that such estimates are always too high. Occasionally the cost of a piece of work is less than the estimate, and an example of this has just come to light at Sheffield. Mr. C. F. Wike, the City Engineer, about six years ago designed the large scheme of sewage-disposal for the City, and estimated the cost at 270,369*l.* The work is now so far advanced that the final expenditure can be calculated with an approach to accuracy, and the result shows a saving of 20,000*l.*, or about 7½ per cent. on the estimated cost. An inquiry was held last week by Mr. Hetherington of the Local Government Board with regard to an application for powers to duplicate the main outfall sewer and to carry out other works, and, thanks to the saving referred to above, the additional borrowing powers required were for 1,060*l.* only. No doubt the town clerk, in praising Mr. Wike, expressed not only his own sentiments, but those of the City Council.

The Reindeer Inn, Banbury.

We learn that, failing any arrangements for its preservation *in situ*, the proprietors of the inn will accept an offer to buy the "Globe Room" for transport to the United States and to erect a facsimile in its place. Illustrations in the *Builder* of September 5 and 19, 1885, and July 20, 1902, show the Reindeer Inn, with its quaint sign projecting over the street and, beneath a timber-framed house in Parsons-street, the gateway with the original gates bearing the carved date "A.D. 1571," which forms the entrance into the inn stable-yard—a place of much resort on market-days during many generations passed. A flight of steps ascends to the Jacobean room which overlooks the yard. It is panelled throughout in oak, blackened with age, but fairly well preserved; the overmantel of the partly modernised fireplace is a fine specimen. The plaster ceiling, of which a cast is in the Victoria and Albert Museum, has an ornamental band in a geometrical running pattern, with wide ribs, the interspaces being filled with small figurines, which, it seems, were formerly gilded. The good details and delicate workmanship of the ceiling, angle-doors, and panelling are remarkable; the ceiling was probably made by itinerant Italian plasterers. A counterpart of the bandwork is on a ceiling at Compton Winyates, though there the filling in of the spaces is quite different. Our drawings also depict the panelling, the bay-window (with measured details), and the angle outer doorway; the inner doorway is set across the angle of the room so as to form a little lobby; a cupboard is formed by a similar doorway set across the angle on the opposite side of the bay.

Proposed Industrial Education League.

It is proposed to form a special League with the object of bringing influence to bear on the management of the lower-class schools of the country to adopt a more general system of specialised training in industries for boys after twelve years old or thereabouts, so as to fit them for entering on trades by giving them some technical instruction before the age when they have to leave school. From the circular which is before us setting forth the objects of the movement, which is signed by Mr. R. Applegarth, we quote the following paragraph:—

"During many years past much useful work has been done in promoting technical instruction by Government assistance, municipal effort, individual enterprise, and philanthropic help; but experience has proved that while such piecemeal efforts have undoubtedly benefited many, they have left uncared for—and can never reach—the bulk of the children who are destined to become industrial workers, and who now drift by thousands yearly from our schools into the ranks of the unemployed and unemployable—the scrap-heap of labour."

The proposed League would have nothing to do with any political party or with sectarian differences. It is intended simply to fit in with and supplement any system of elementary education. It is intended at an early date to call a national Conference for formulating a definite scheme for carrying out the objects of the League, which already has established its central offices at Craig's Court House, Charing Cross.

R.I.B.A. Conference on Town Planning.

The Institute of Architects, considering that it is of the utmost importance, since the passing into law of the Housing and Town Planning Act, that the architectural development of towns should receive careful consideration, have decided to organise a Conference "To study the architectural problems involved in the improvement and extension of our cities." This Conference will be held at the Institute Rooms from the 11th to the 16th of July. The programme will include an exhibition of drawings, plans, and models bearing on the subject, and a large number of town plans and views will be displayed by lantern-slides. This is a special Conference, not for members of the Institute as such, but for subscribers of a guinea, which will entitle members to admission to all the meetings and visits and to the receipt of all literature in connexion with the Conference, including a copy of the illustrated volume of *Transactions* to be published subsequently.

THE ARCHITECTURAL ASSOCIATION.

An ordinary general meeting of the Architectural Association was held on Friday last week at No. 18, Tufton-street, Westminster, S.W., Mr. Henry Tanner, President, in the chair.

The minutes of the last meeting were read and confirmed, and the following gentlemen were elected as members, *i.e.*, Messrs. E. C. Hallett, C. C. Simmons, P. Streitberger, and L. W. Baker.

The following announcements were also made:—

The third spring visit, on the 12th inst., to the new Y.M.C.A. building, Tottenham Court-road, by permission of the architect, Mr. Rowland Plumbe. Members to meet at the building at 1.30 p.m. A visit will afterwards be paid to the British Museum extensions at 2.30 p.m., by permission of the architect, Mr. J. J. Burnet.

A meeting of the Camera and Sketching Club on February 17, at 7.30 p.m. Paper by Mr. Michael Bunney, entitled "Georgian Architecture."

A meeting of the Debating Society on February 11, at 7 p.m. Paper, entitled "Architectural and Engineering Considerations in Town Planning," by Mr. Frank R. Durham (joint meeting with the Junior Institution of Civil Engineers).

Renaissance Church Architecture in France.

Mr. W. H. Ward then read the following paper, entitled "Renaissance Church Architecture in France During the XVIth Century":—

"France in the XVIth century offers the picture of the union of two architectures, so different in their aims and in their forms as to seem irreconcilable. Yet, as is often the case in a marriage between persons of strongly diverse characters, the union was not unhappy in its results, each party to it supplying elements which are lacking in the other. The products of the combination are so rich, so vigorous, so varied, and their development, though so often balked by events, so rapid, that few more fascinating studies can be found in the history of architecture, and it will repay perhaps more than is usually thought to push the study even into such bypaths of the subject as that which forms the theme of this paper. It is a commonplace that the history of architecture is in most countries and ages the history of religious architecture. In the Middle Ages if church architecture were eliminated nothing coherent, or indeed very important, would be left. But, at the time of the Renaissance, western Europe had largely outgrown the tutelage of the Church, the hitherto all-embracing institution, the all-pervading medium in which its life had moved. The idea of nationality was developing, and in England, Spain, and France the focus of national life was becoming a strong centralised monarchy. The architectural expression of this state of affairs is to be found, therefore, in secular building, and more particularly in the dwellings of the Sovereign and his Court. The architecture of France in the XVIth century is essentially an architecture of châteaux, of the pleasure-houses of a still half-feudal aristocracy. Church architecture is thus a bypath, but a pleasant and withal an instructive path to trace out.

Since, for brevity, it is convenient to indicate phases of style by the names of Kings, I will at this point define the sense in which I use these names. The Louis XII. style is the transition from Gothic to Renaissance, in which elements from both schools are intermingled capriciously and without system; the Renaissance elements are chiefly decorative, and do not affect the structure. The Francis I. style corresponds with the early Renaissance of Lombardy, which supplies its graceful and exuberant decorative system, but the structure is still in essentials unchanged. The Henry II. style corresponds with the advanced, or Roman Renaissance, which not only brings with it a more masculine code of forms governed by stricter rules, but usually exerts an influence on the design as a whole both in plan and elevation.

These definitions apply to all branches of architecture, but in dealing with church work further distinctions must be made First, when the Francis I. style was fully established and its detail thoroughly understood, Gothic ideas persisted in the church in conjunction with it far more than in secular work. Thus, for instance, the occurrence of a pointed window in a château would generally be sufficient for it to be classed as Louis XII., but in a church it might be found at any period almost up to the XVIIIth century, and would be treated in contemporary detail. Secondly, the term "Henry II. style" may, more especially in church work, cover two very different classes of design; one, in which the influence of the advanced Renaissance is confined merely to a use of the Orders and a mode of profiling more correct according to contemporary Italian standards, and another in which the whole building is designed on classical lines.

It is much more difficult to present a picture of church architecture in the XVIth

century than of contemporary secular architecture, because there is no large number either of extant buildings, of illustrations of destroyed ones, or of unexecuted designs, and, what is worse, no consecutive series of complete examples at all. If we except a short list of approximately complete buildings, a history of the style must be compiled chiefly from additions and embellishments to Gothic churches—here a chapel, there a transept, elsewhere a vault or a portal, a tomb, a screen, or a reredos. We can but guess at the manner in which an architect of the second or third generation of the Renaissance would conceive an entire church, while the buildings of the first generation are so few that the possibilities of style development which they seemed to promise were never fully worked out.

Yet if we examine the conditions under which this work took shape, we shall be surprised that so much rather than so little was accomplished. If we consider the state of the Church, we see that, while politically she was increasingly subject to the civil power, morally as well as intellectually she was no longer the only, perhaps not even the principal leader. She might, however, have yet played an important part in the pageant of architecture but for two circumstances—the building activity of the Middle Ages had left the country amply equipped with places of worship, and the internal condition of the Church was far from satisfactory. The first of these propositions needs no amplification. The second is shown by the fact that French Catholicism produced during the XVIth century no conspicuous saint or theologian except such as had leanings towards unorthodoxy. The clergy were permeated with worldliness and superstition, and the most prominent churchmen were chiefly distinguished either for secular learning and political ability, or for their persecuting zeal. Meanwhile the operative forces of religious life were on the whole to be found among the Reformers, who were being forced by the prevailing repressive policy to form themselves into independent organisations. This state of affairs was only temporary. In the XVIIth century, when the counter-Reformation had done its work, the French Church entered upon a new period of progress, and was second to none in the piety, zeal, and learning of her divines. In the XVIth, however, she had neither the need nor the moral impetus for building on a great scale.

If we turn, on the other hand, to the nascent Reformed churches, we find them even less favourably situated. The Reformation was not refractory to classical influences, and at any rate in its earlier stages went hand-in-hand with Humanism. Their architecture would thus naturally have assumed a Renaissance colour. But till the time of Henry IV. Protestants never received more than the barest toleration, and seldom even that. At the same time their numbers were smaller and their needs simpler than those of the Catholics. In rare cases existing churches were assigned to their use; more frequently they had to be content to meet in private dwellings, in buildings lent by some nobleman "of the religion," or in the open air, happy if their devotions were not disturbed by bloodshed. Some places of worship were erected *ad hoc*; others arranged by fitting up secular buildings, such as barns, with galleries. All were swept away by one or other of the contemporary bursts of fanaticism, or, at latest, did not long survive the Revocation of the Edict of Nantes (1684). There appears to be but one exception extant—a graceful Renaissance edifice in the abandoned city of Les Baux in Provence, which was probably erected as a Protestant chapel. The reaction against ceremonialism and superstitious practices naturally generated an iconoclastic spirit, under the influence of which buildings and their adjuncts associated with the Roman cult suffered at the hands of zealots. The period of civil and religious strife in the latter portion of the century was, in fact, a destructive rather than a creative one.

It has often been remarked that men are most conservative in matters of religion; in this respect architecture is no exception, and mediæval methods died hard in France. On general grounds it was to be expected that the resistance to a classic revival would be strongest in the cradle of Gothic art. More especially would French church architecture, whose development had been the inspiring idea of Gothic art, be its last stronghold. Accordingly, we find that side by side with the new tendencies pure, or all but pure, Gothic designs persisted in much church work of the first half of the XVIth century. Some parish churches and large portions of several of the cathedrals commenced under Louis XII., and not finished till the reign of Henry II., are cases in point. Even beyond this period, when Renaissance forms had become as firmly established in religious architecture as elsewhere, sporadic instances of Gothic design are by no means rare. St. Merry in Paris (1520-1612) shows hardly a trace of the Renaissance. The Gothic cathedral of Orleans was only begun under Henry IV., and its pseudo-Gothic west front not built till the reign of Louis XV.

As in secular architecture, the Renaissance movement spread from the top downward. The most strenuous opposition to innovation would seem to have come from the conservatism of the craftsmen specially attached to the service of the Church and trained by hereditary traditions of construction and technique, and from the lower clergy, often poor, ignorant, and superstitious. On the other hand, the heads of the profession, the great master masons of the cathedrals, seem to have been ready to accept hints from Italy. Thus Martin Chambige and Rouland le Roux, both members of dynasties of "maitres des œuvres," who carried out important works, the former at Sens and Beauvais and the latter at Rouen, introduced Renaissance elements into them, or allowed the craftsmen under them to do so. Similarly the heads of the Church—that is, those among the clergy who were most open to new ideas—were just those who came most in contact with Italy. The relations between the French Church and the Holy See produced a constant interchange of visits. French clerics of standing usually journeyed at least once to Rome, and great political churchmen, such as the Cardinal of Amboise, the builder of Gaillon, and his nephew, and Cardinal Ippolito of Este, passed continually to and fro. Again, French benefices were a convenient provision for Italian younger sons and "nephews" of popes and cardinals; these prelates often considered their duties discharged when they had drawn the revenues, but the personal belongings and church paraphernalia of those who did reside would be a revelation to their French neighbours, even when they did not directly introduce Italian artists or architects.

The field of possible Renaissance influence in church architecture is thus confined to the relatively small amount of work undertaken by Catholics, and a portion only of that. Church building was no longer a popular enthusiasm. Though it was occasionally paid for out of municipal funds, or by public subscription, it was more often due to the bounty or vanity of the rich. Nobles, lay and ecclesiastical, officials or wealthy "bourgeois," would provide a parish in which they were interested with a new church, or build themselves a private chapel or mausoleum. The bishops had lost the taste for lengthy constructions, and preferred to undertake something of moderate compass, which they might hope to see completed in their lifetime, such as a steeple, a doorway, a set of screens.

The comparative rarity of examples may account for the unfamiliarity of the subject; and this unfamiliarity may be partly responsible for the contemptuous manner in which the few examples generally known, beautiful as they are, have too often been dismissed as grotesque freaks or necessarily unsuccessful attempts to compass the impossible. To the structural appropriateness of classical forms there is often ground enough for objection, but it should not be forgotten in estimating at least French and Italian Renaissance churches that a possible evolution, such as that which took place in the Middle Ages, was arrested by foreign invasions, civil wars, and other disasters before complete assimilation could take place.

But the hostile attitude alluded to is also partly due to an assumed antagonism between classical forms and Christian worship, a view which seems to ignore the fact that all Christian architecture derives ultimately from a classical source, and that the nearer it is to the age of primitive Christianity the more classical it is. A High Church lady once told me that she could not worship in Marylebone Parish Church because it was so like a pagan temple. Could she have been transported to the IInd or IIIrd century she would have found no place fit to worship in at all! In the XVIth century few educated people would have shared her opinion. The introduction of allusions to classical mythology is also freely condemned; but even here, grotesque as they may appear to us, it is hardly extravagant to recognise manifestations of a wider outlook on history which the recovery of a knowledge of antiquity brought with it. At a period when the subtlest minds were striving to harmonise ecclesiastical and pagan conceptions of the universe—a task with which Dante had busied himself two centuries earlier—when Marsilio Ficino was attempting to reconcile the philosophy of Plato with the teachings of Our Lord, when Lionardo da Vinci was painting John the Baptist with the attributes of Dionysus, these heathen allusions did not shock the faithful. All antiquity was in their eyes a part of the divine plan of the world's government, and equally available with the Scriptures and the lives of the saints for the illustration of moral and theological truths. Parallels were found without difficulty—Hercules with his club figured side by side with Samson and the ass's jaw, amorini were hard to distinguish from cherubs, satyrs from devils, or the queen of the gods from the Queen of Heaven. The ancients might have been pagans, but it was quite possible, "*avec un peu de bonne volonté*," to believe that their mythology was but an imperfect foreshadowing of Christian doctrine, and since in other things there was so much to be learnt from them, allowance might be made for the moral shortcomings of their divinities; in any case they were quite as edifying as the broad jests with which irreverent mediæval sculptors had decorated gargoyle and miserere. The Renaissance sculptor may have been pedantic when he represented God the Father with the attributes of Jove the Thunderer, but he was conscious of no more incongruity in doing so than the artists of the catacombs who portrayed the Saviour in the guise of Orpheus. It must not, however, be supposed that pagan elements, as distinct from definitely architectural forms, played a leading part in the decoration of churches. Everywhere Scriptural and hagiological subjects predominated, together with emblems illustrative of theology and worship; they were merely expressed in a new manner.

Whatever view may be taken of the reimportation of classical forms into church architecture, there can be no question that it was inevitable. No institution forming a vital part of national life can remain unaffected by its intellectual environment, and church builders had to assimilate the humanistic tastes which were permeating the whole of educated society. In doing this they were confronted with the same problems as the castle-builders—the clothing of a mediæval framework in a modern dress; but there was this difference, that, whereas in the castle the reason of its being—its fortification—was growing obsolete, and some

semblance of it was retained only from habit and for sentimental reasons, in the church the functions were unaltered, and no change in essential arrangements was tolerated.

The architecture of the church was thus, like all contemporary architecture, a compromise between French and Italian methods. It differed in retaining throughout a larger porportion of the essentially native element. The great interest in studying it is to trace out the way in which the builders set to work to translate traditional details, features, and types of composition into a new form-language as fast as they learnt it. It is curious to observe to what different results these attempts led; not only how they differed from decade to decade, but how simultaneous attempts differed from each other. This is due to differences not so much in the taste as in the cast of intellect of the designer. A man with an aptitude for grasping the grammatical principles of a language, but a poor head for vocabulary, will soon know how to construct sentences in a foreign tongue, but will have to fall back on his own for words. He is, however, a less common type than the man who can pick up words parrot-like and learn to speak a foreign language, fluently perhaps, but ungrammatically. Thus, in architecture we see more examples of rapid advance in forms keeping pace with the changes in fashion, but employed to express old types of design, than of a quick grasp of new general principles of design; and when the latter occur they are not always up to date in detail.

I hope to illustrate by slides some of these stages of development, together with others of an intermediate character. In the course of these translations we shall see some merely curious, or even grotesque results; but, on the other hand, many charming and ingenious ones, full of suggestion even to-day, which may well fill us with regret that various causes, and in particular the Wars of Religion which raged for thirty years in the latter half of the century, should have arrested the course of development, and that when development began again in the reorganising era of the XVIIth century it should have been inspired by quite another order of ideas.

Chapel of St. Lazarus at Marseilles.

After my remarks on the conservative tendencies of religious architecture it may appear somewhat contradictory to state that the earliest known Renaissance structure in France is a chapel. This slide shows the chapel of St. Lazarus built in the old Cathedral of Marseilles (1479-81) by Francesco Laurana. It is, however, an isolated phenomenon without immediate results in a province far removed from the centre of national life, and not even immediately ruled by the French King. It was designed in the Italian manner by an Italian for a prince connected by blood with an Italian dynasty. Duke René held the semi-independent fief of Provence, together with those of Anjou and Maine. In or close to his dominions alone are monuments of similar character to be found so early, and they are the work to a large extent of the same artist. They include tombs at Le Mans and Tarascon, and a reredos at Avignon. I do not illustrate them, as it is impossible in the limits of this paper to touch on sepulchral design, or except very cursorily on church accessories. This group of works anticipates by from ten to twenty years the date usually assigned as the commencement of the Renaissance in French architecture. 1495 was the year in which Charles VIII. invaded Italy and thus inaugurated a series of French campaigns in the peninsula, which extended over three reigns, and were one of the principal means of introducing the Italian influence into France. Not till after this date and the subsequent foundation by Charles of a colony of Italian artists at Amboise does the true career of Renaissance architecture begin. The next eight slides will show the designers attempting to amalgamate native and foreign motives by juxtaposition and intermingling rather than to reconcile them. In many cases at this period Italian influence was represented by an Italian carver who was employed to carve the more important ornaments and occasionally to design an entire feature, while his French colleagues either worked in their own style or made clumsy imitations of the new fashion. In addition to such efforts to introduce Italian detail the means first and most frequently employed with a view to effect a change in the direction of classicism was the substitution of the curved for the pointed form, whether in tracery, in the heads of openings, in arches, or in plan.

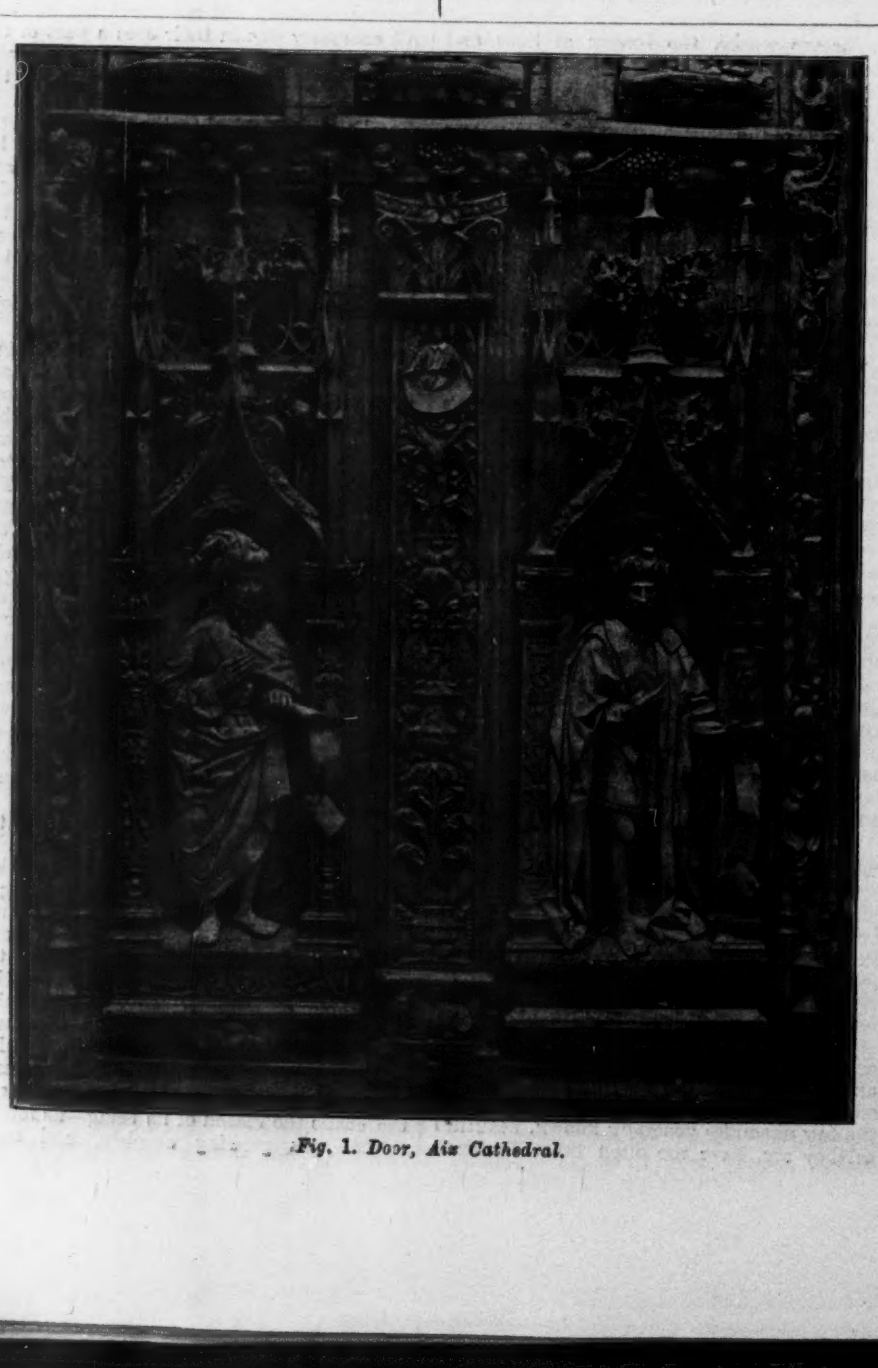

Fig. 1. Door, Aix Cathedral.

Screen at St. Jacques, Dieppe.

In this screen from St. Jacques at Dieppe the tracery, the bases and sections of the mouldings, and the spiral shaft are all in accordance with flamboyant Gothic usage, but the shell panel-heads, the capitals, the entablatures, and the round arch speak of the Renaissance.

Door of the Cathedral at Aix, in Provence.

Similarly in this door from the Cathedral of Aix, in Provence (Fig. 1), there is a complete mingling of pilasters and arabesques with crocketed pinnacles. It looks as if the work was done by a Frenchman much more at ease in the contorted naturalism of the contemporary Gothic foliage than in the calmer conventional flowers and fruit of the friezes and panels of the Italian type.

Pier from West Front of St. Michel at Dijon.

In this pier from the front of St. Michel, at Dijon, the Gothic element in the detail has been reduced, but the niches are still composed of alternately Gothic and Renaissance elements, but the Renaissance elements are more thoroughly assimilated.

Lantern of the North-West Tower of Tours Cathedral.

This lantern crowns the northern of the two towers at the west end of Tours Cathedral. The upper part of the tower is one of the earliest transitional ecclesiastical structures whose date is known. It was finished in 1507, probably by the brothers Martin and Bastian François. The southern tower finished forty years later is virtually a copy of it. The two elements are better blended in this example than in most of the previous ones, but still without definite system.

Font Canopy at Bretagnolles.

In this font canopy at Bretagnolles, near Evreux, all the detail except the shaft bases is Renaissance, but the shafts themselves and their caps have a XVth century outline. The tendency to turn the cusping of the tracery into foliage is one which was much developed later.

Wooden Rood-screen at Villemaur.

This wooden rood-screen is from Villemaur, a village near Troyes: it seems to have reached exactly the same stage of development as the last example, though not finished till 1521. It belongs to a neighbourhood which was for many years an important centre of Renaissance church work. A large part of Troyes having been burnt down in 1525, the churches subsequently restored are rich in examples.

West Front of the Church at St. Calais.

When we turn from single features to a complete composition we find that the task of amalgamation proved rather more than the architects of the day could cope with. Nothing more awkward can be imagined

than the front of the church of St. Calais, near Chateaudun, as a whole. Almost all the features are translated into Renaissance forms; some of them are individually beautiful, as for instance the central doorway with the scrollwork tracery in the fanlight. But in composing the entire elevation the architect floundered hopelessly. He got a certain amount of horizontality into it, but felt bound to keep the traditional vertical division by using clumsy buttresses, and then made a futile attempt to connect them up with the upper window by a flamboyant Gothic label with a pediment on the top of it.

Chapel at Ussé: West Front.

Very different is the front of the castle chapel at Ussé, where the designer has succeeded in fusing the two styles into a harmonious blend. While almost every detail is Renaissance the general effect of the elevation is distinctly mediæval, so completely does it retain the vertical aspiring character, an effect emphasised by the grouping of the door and window into a single feature under a pointed arch and a canopy of flamboyant outline. The pinnacles have no crockets or gablets, but are represented by a feature of approximately similar silhouette—a tapering candelabrum motive.

Having now reached the stage when the language of Lombard Renaissance detail has been thoroughly assimilated, we may take an example which gives the fullest expression of its application to a church. St. Eustache, in Paris, begun in 1532, is the largest and completest Renaissance church of the century in France. It was designed as a whole from the first as a Renaissance building, and, with the exception of the west end, carried out in accordance with the original design. The architect is not certainly known. The ultra-patriotic writer, M. Léon Palustre, invented a beautiful theory that it was the work of three generations of a family of master masons named Lemercier, and therefore owed nothing to Italian influence. But this theory will not bear investigation. There is nothing to show that either the first or third had any connection with St. Eustache or that they were related, or that the second ever even existed. On the other hand, there is nothing improbable in the suggestion that the design was due at least in a measure to Dominic, of Cortona, known in France as Boccador, who, after living for many years at Blois, where he worked for Louis XII. and Francis I., and was the probable inspirer of much of the work in the Loire valley, removed, at Francis I.'s order, to Paris in 1531, to act as architect to the new Hôtel de Ville. The work was carried on slowly till 1589, and resumed from 1624 to 1654, when it was complete with the exception of the upper part of the west front.

It will be a convenient method of taking a survey of the development of religious architecture if we take St. Eustache as our standard for the various aspects of church design, and make excursions to other examples to illustrate each, always returning to it as our headquarters. By completing its lacunæ from other buildings we may obtain an idea of the splendid results which might have been achieved had external circumstances permitted an unfettered development of the school.

St. Eustache: Plan.

In plan St. Eustache is practically identical with Notre Dame, the principal difference being that whereas Notre Dame has five bays in the choir and eight in the nave, St. Eustache has three and five respectively. In other respects the dimensions are nearly equal. The internal width of the transepts is about 148 ft., and the internal length about 280 ft. (not counting the Lady chapel). The circular form of the apse is not in this case a Renaissance innovation, but borrowed from the Gothic model.

St. Eustache: Section.

In section the likeness is less striking. Though the height of the nave (107 ft.) is about equal, it is flanked by double aisles, both of great and equal height, instead of the low inner and lower outer aisles at Notre Dame. In consequence the air of spaciousness is greatly increased, and, a much loftier nave arcade being possible, the effect of verticality is also greater though counterbalanced by round instead of pointed arches and vaults, as may be judged from this view of the interior.

St. Eustache: Interior.

We may begin the analysis of the building with the design of the piers. The slide shows

St. Eustache: Aisle Pier.

a pier between the outer and inner aisles (Fig. 2). It is of the compound type with pseudo-orders performing the various functions required. On the angles are members composed of a series of superposed pilasters and engaged shafts taking the relatively thin and unimportant diagonal ribs, their entablatures, which correspond with the springing of the chapel vaults and arches, etc., introducing a welcome horizontal element. On the faces of the piers, on the other hand, are unbroken panelled pilasters carrying the heavier cross vaulting ribs and arches of the arcades. They supply the strongly-marked vertical line, yet further emphasised at the crossing piers, which is the dominant note of the interior.

Ennery: Nave Pier.

The nave pier from Ennery, near Pontoise, shows a similar system applied to a small country church.

St. Pierre, Tonnerre: Nave Piers.

At St. Pierre, at Tonnerre, compound piers with no horizontal element introduced are used at the section with similar responds for the choir arcade, but the remaining choir piers make a return to the single shaft, and are treated as Doric columns, with the cylinder carried above the cap for the arch moulds to die into. The treatment of the latter as a panelled splay is effective, and seems intermediate between the receding mouldings of Gothic tradition and the architraved treatment of the later Renaissance.

St. Etienne du Mont: Interior.

St. Etienne du Mont, (Fig. 3, page 166), is contemporary with St. Eustache and of similar plan, but it is on a smaller scale, and shows a gradual growth in style from east to west. The choir (1517-37) is almost pure flamboyant Gothic; some Renaissance elements appear in the crossing and transepts, and they become more pronounced in the nave (1538-60). The west end and rood-loft belong to the reign of Henry IV. The balustraded gallery halfway up the piers is a pretty and almost unique feature, whose use is to steady and give an appearance of solidity to the tall plain shafts. It is curious that the lower arches should be of more advanced type of design than the upper. The capitals are unnecessary and unsightly.

Notre Dame, Guingamp: Pier Base.

Though adorned with clumsy sculpture, this nave-pier from Notre Dame de Bon Secours, at Guingamp, is an interesting one. The heavily-moulded arches die into a cylindrical shaft, which lower down becomes octagonal and stands on a square base. A slender circular vaulting-shaft is carried up the face from the floor.

Notre Dame, Guingamp: Triforium.

This slide shows the arches and vaulting carried by the pier in the last. The arches

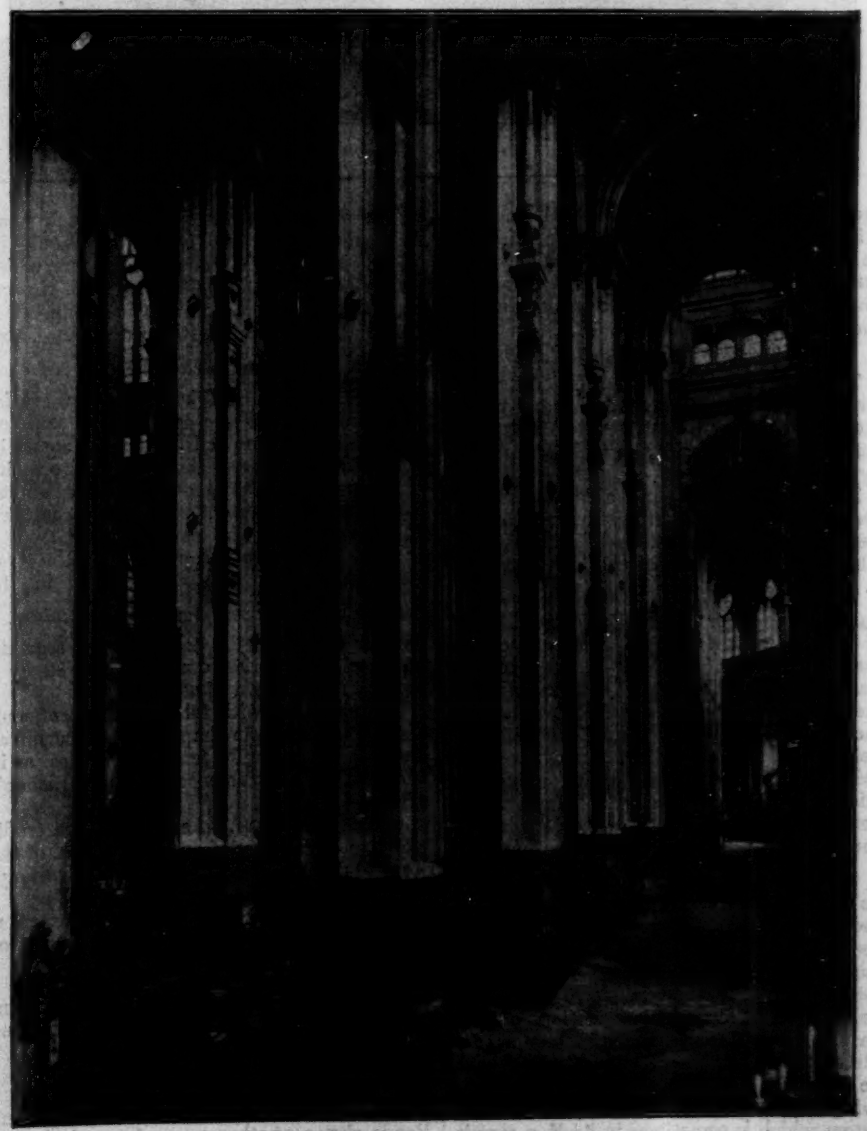

Fig. 2. Interior, St. Eustache, Paris.

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Fig. 3. St. Etienne du Mont, Paris.

are pointed, but have a key-block. The triforium is prettily designed, but carried out in the clumsy detail usual in Brittany, and due partly to the distance from more civilised centres and partly to the hardness of the local stone.

St. Taurin, Evreux : Triforium.

This view from the nave of St. Taurin, at Evreux, shows another triforium and one of the most successful treatments of the springing of the vaulting ribs, which are carried by a compound corbel.

I am unfortunately not able to illustrate very fully the interesting subject of the treatment of vaults. The XVIth century inherited the tendency of the XVth to great

Champigny sur Veude : Cloister Vault.

elaboration either by further complication of the rib system or by the enrichment of the parts. In both cases the sole object was decorative. It goes without saying that the ribs received classical sections usually of the architrave type. Ribs, bosses, and web are each decorated. In this vault, occurring in a cloister running along the side of the castle-chapel at Champigny sur Veude, the boss takes the form of garlanded patera. In this vault from the Church of

Valmont : Vault.

Valmont, it is replaced by a miniature dome, and the webs are carved. Pendants are frequently introduced, especially in star vaults, such as are usual at crossings—for instance, at St. Etienne du Mont. But they are also placed at other intersections of ribs, are richly decorated, hang down to a considerable depth, and are connected up with the roof by flying ribs and volutes, thus giving an air of great elaboration to a vaulting system which is sometimes in itself a simple one.

The multiplication of ribs left such small intervals that it was found they could be filled with a single stone, a discovery which gave rise in Normandy to a series of rib and slab ceilings, of which that at Tillières is one of the less elaborate examples. Those

Tillières : Nave Vault.

in the chevet of St. Pierre, at Caen, are far more intricate. They consist of a skeleton rib system with no cells, but with spandrils filled with a carved slab as here, or with tracery. This supports another, almost horizontal, rib system with its spaces filled in the same way with enriched slabs.

A number of other devices besides true rib vaults were also used. That in the

St. Martin, Tours : Vaulting in Cloister.

cloister of St. Martin, at Tours, is a segment of a spherical brick dome intersected by a rectangular pattern of stone ribs.

Barrel vaults with false ribs, or coffered, also occur as in the chapel of St. Saturnin at Fontainebleau, and a few small domes, as in the Pendentif at Valence and the Bishop's Chapel at Toul.

Outside Brittany, where they were traditional, I only know of one timber roof of the Renaissance in the castle-chapel at Fleurigny. It takes the form of a boarded barrel.

We may now turn to the exterior, beginning at the east end. The chevet of

St. Eustache : Chevet.

St. Eustache, differing only in detail from that of a Gothic cathedral, requires no detailed description.

Champigny sur Veude : Apse.

The château-chapel at Champigny sur Veude shows another type of translation of Gothic work, each feature being rendered differently from those at St. Eustache. There is no chevet, but a sacristy on either side reached by the cloister, shown on a previous slide.

St. Julien du Sault : Chevet.

The church of St. Julien du Sault has chevet chapels built in Gothic times, but by the time the clearstory was reached the Renaissance was in full swing.

St. Pierre, Caen : Chevet.

Contrariwise, at St. Pierre, at Caen, chevet chapels of Francis I. work are built round an apse which is almost entirely Gothic. The decoration, as frequently in Normandy, is of a more exuberant type and with bolder projections than would be the case round Paris or in the Loire valley. The Lady chapel is carried up an additional story.

St. Eustache : South Elevation.

Though surpassed in the beauty of special features and detail by other examples, St. Eustache gives as fine an example of the side elevation of a Renaissance church as can be found.

St. Pierre, Tonnerre : South Side.

The south side of St. Pierre, at Tonnerre, is probably a little later than the last example. The aisle windows contain contemporary glass dated 1541. There is a restraint and refinement about both the design as a whole and its detail, which is in marked contrast to some examples—St. Pierre, of Caen, for instance.

St. Pierre, Dreux : South Transept.

At St. Pierre, at Dreux, the south transept added to a large Gothic church has a façade of good Henry II. work, which, in spite of minor awkwardnesses, is of as majestic and monumental a character as could well be expected from a classic front applied to a largely Gothic plan and section. Unlike any we have yet seen, this façade is composed as a whole on classic lines. It terminates in a well-designed gable with small central pediment above the cornice shown on the slide.

It was probably carried out by one of the Métezeau family, who were master masons at Dreux for several generations before being employed at the Louvre, but the design may well owe something to Philibert de l'Orme and Jean Goujon, working at the time (about 1540) at the neighbouring château of Anet.

St. Michel, Dijon : West Front.

I cannot show the west front of St. Eustache as it was originally designed, for it was never finished and no longer exists. What there was of it was removed in the XVIIIth century to make room for a façade designed by Jean Mansart de Jouy, a grandson of Jules Hardouin Mansart, the architect of the Invalides, begun in 1754, and afterwards altered by Moreau Desproux, architect of the façade of the Palais Royal, but still lacking the south tower when the work stopped in 1787.

The front of St. Michel, at Dijon, has the same general arrangement of a nave front flanked by twin towers. But at St. Eustache the vertical lines of the towers were carried to the ground by bold pilastered buttresses. There was a great central door as at Dijon, but windows at the sides, and the stories in the towers were more varied.

At St. Michel the great three-arched portal is borrowed from a mediæval cathedral, and the horizontal line above it hardly more strongly marked than at Notre Dame at Paris, where the junction with the upper part of the towers is much more skilful. These towers, with their monotonous repetitions of similar stories, are in Henry II. detail, and were not finished till the XVIIth century. They are obviously by an inferior hand to that which designed the bold Transitional lower story, with its charming lantern lighting the central archway.

The three-arched portal motive was repeated in at least two other churches at Vouziers in Northern Champagne, where it

Vouziers: West Front.

appears in fully-developed Francis I. work, and at Villeneuve sur Yonne, in Burgundy, in

Villeneuve sur Yonne: West Front.

Henry II. detail. The architect who had fairly mastered the superficial aspects of the style had, however, no conception of the principles of design which accompany it, and only uses the detail as it were as a veneer, though not without attaining a certain majesty due to the great lines of the composition and the comparatively quiet character of the ornament.

Notre Dame, Tonnerre: West Front.

The west front of Notre Dame, at Tonnerre, added to a Gothic church is perhaps on the whole nearer to the old front of St. Eustache than either of these three, though it has only one tower whose stair-turret is visible in the foreground. Built in 1536 it was severely damaged by a fire in 1556. Owing to this and the narrowness of the street the great beauty and delicacy of the work can hardly be appreciated from a photograph. The two following slides exhibit changes of style in the course of the construction.

Gisors: West Front (Centre).

The splendid church at Gisors has a complicated history. There was a nucleus of XIIIth century work, largely added to in the XVth and constantly patched between 1497 and 1579. In the middle of this latter period the XVth century high vaults fell in, causing much other damage, which had to be repaired. The present building is, therefore, a museum of styles, and shows specimens of excellent quality of many different periods. The north tower, not seen in the slide, is Transitional below, with a rich Francis I. lantern. The new front was Flamboyant Gothic, and between its buttresses a central portal of exquisitely refined and sober Francis I. work was inserted. Then two and a half stories of the south tower and the connecting portion were added in Henry II.'s reign, and the loggia over the west door in that of Henry III. Though the general design of the south tower is not specially remarkable, no example of this period in the whole of France surpasses it in beauty and refinement of detail and ornament. A decorative sculptor of a very high order must have been employed upon it, and it has even been suggested that Jean Goujon had a hand in the work. Part of its southern face will appear in a later slide.

Pont Ste. Marie: West Front.

The church at Pont Ste. Marie, near Troyes, shows a three-gable front, with the picturesque overhanging verges common in the district. The nave portal is late Gothic. The north aisle portal is in late Francis I. detail. The designer, however, felt bound to retain the pointed form for the window. In the south aisle he went the whole hog and made it round-headed.

Champigny sur Veude: West Front.

We now come to an example of a towerless front with only one gable. The castle chapel of Champigny sur Veude, whose apse and cloister we have already seen, appears to have been built from the east westwards, so that the narthex-porch, a feature of which several examples are found at the time, is of early Henry II. work, and a very refined example. It looks as if a pair of towers may have been intended.

The last two examples of west fronts I shall show you both belong to a period later than 1550. The first one, that of St. Pierre

St. Pierre, Auxerre: West Front.

at Auxerre, though probably the later of the two to judge from its florid character, retains much more of the Gothic type of design and a greater admixture of Gothic features than many earlier ones. It is one of the very few church fronts in France with three orders below the gable.

Le Mesnil-Aubry: West Front.

The façade of the church at Le Mesnil-Aubry is far quieter, and designed as a whole on classical lines, and is the nearest approach to the typical XVIIth century church front. It is possible, indeed, that the gable is a XVIIth century addition. It has been suggested that the church may have been designed by Jean Bullant, who worked for many years at the neighbouring château of Ecouen.

Bressuire: Tower.

St. Eustache having no XVIth century towers, we must take our examples elsewhere. Of the four which I have chosen three show different stages of development, and one a peculiar provincial type.

The noble tower of Bressuire (finished 1538) has the bold buttresses with many offsets of the mediæval French towers, and consequently the same tapering silhouette, though in detail, at any rate, in the upper stories all is Renaissance.

St. Antoine, Loches: Tower.

The tower of St. Antoine, at Loches (1519-30), on the other hand, recalls an Italian campanile with its vertical shaft, only broken by long pilaster strips and shallow panelling.

St. Nicolas, Rethel: Tower.

The unfinished tower of St. Nicolas, at Rethel, is a sturdy example of Henry II. work, with a sober use of the orders in the form of buttress-like pilasters at the angles. The upper story may be a little later, perhaps about 1600.

La Roche-Maurice: Steeple.

The steeple at La Roche-Maurice is typical of the Breton manner. Its date is uncertain. The detail, as in most Breton work for a century after 1550, is of a sort of bastard Henry II. type. Brittany was the land of spires, and the spire died there hard, surviving long after it was extinct elsewhere. The strongly-marked horizontal features were already prevalent in pre-Renaissance examples.

The next two slides are not exactly of towers, but of tower-like structures.

Chartres: Clock Turret.

This is the well-known Francis I. clock turret which stands beside the cathedral at Chartres.

Haute Vieille Tour, Rouen.

This monument, built in 1542, in the old market at Rouen, is the chapel of St. Romain. Once a year the saint's relics were carried in procession through the lower arch and exhibited in the loggia above, and a condemned criminal received his pardon on raising the shrine or "Fierte" in his hands.

L'Ile-Adam: West Doorway.

We may now take a few of the individual features of a church, beginning with doorways. The example on the screen is a graceful translation of a Gothic arched door with deeply splayed jambs, and many times recessed arch into Renaissance forms. It is the west door of the church at l'Ile-Adam.

St. Eustache: South Doorway.

The south transept at St. Eustache has a more important doorway (Fig. 4) with a central pier and with a window above included under the same arch, treated in much the same way as the last. But the growth of Renaissance influence is shown in the desire to enclose this Gothic motive in a square framework.

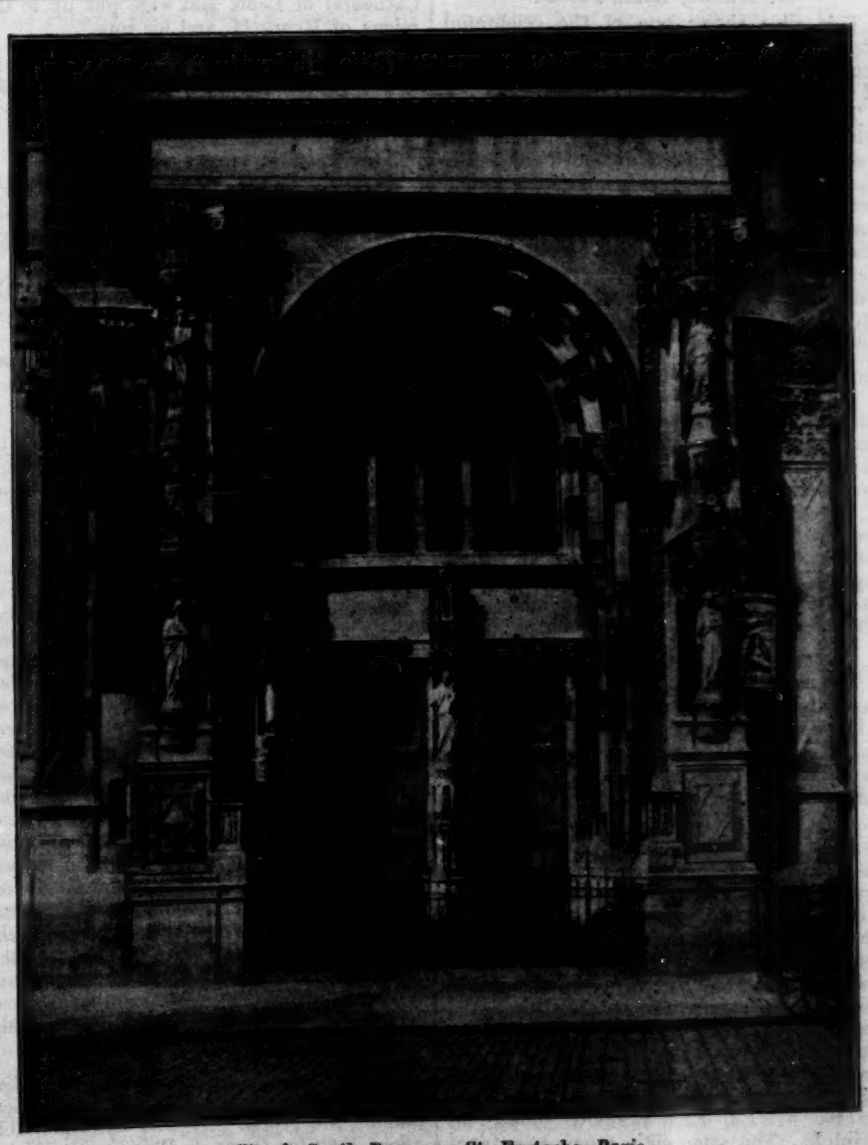

Fig. 4. South Doorway, St. Eustache, Paris.

St. Jean de Losne : West Doorway.

The west doorway at St. Jean de Losne shows the same desire expressed in more reticent forms.

St. André-lez-Troyes : West Doorway.

The west doorway at St. André-lez-Troyes (1549) shows a further step. The framework is here treated as more important than the opening. It takes the preponderant place in the composition. This doorway is probably one of the works of Domenico del Barbiere, a Florentine who settled at Troyes and married his daughter to a Frenchman with whom he went into partnership. He collaborated with him and others in a number of similar works in the neighbourhood.

Grand Andely : North Door.

The north transept of Ste. Clothilde, at Le Grand Andely, was added about 1540. Its doorway illustrates the translation of a mediæval type into Henry II. detail.

St. Nicolas, Troyes : South Doorway.

The south portal of St. Nicolas, at Troyes, another work probably of Domenico Fiorentino, illustrates a design made as a whole on advanced Renaissance principles.

St. Nizier, Lyons : West Doorway.

The west doorway of St. Nizier, at Lyons, is another fully classical composition of much bolder character. It is perhaps a work of Philibert de l'Orme, and formed part of a scheme for an entire new façade. The use of a great niche as a porch is a conception so majestic that it might well have been more frequently used than has been the case.

Cathedral, Beauvais : South Doors.

These superb doors from the south transept of Beauvais Cathedral are examples of the best Francis I. work at its richest period.

St. Maclou, Rouen : Door.

This slide shows one of the celebrated doors of St. Maclou, at Rouen, attributed to Jean Goujon, and extremely characteristic of Henry II. decoration.

The task of translating traceried windows into an appropriate Renaissance equivalent was one of the most difficult which the church designers met with, and led to some interesting solutions. One line they followed was to retain the flowing designs in use in Flamboyant Gothic, introducing new forms such as hearts, fleur-de-lys, ovals, into the patterns. This is to be seen in quantity at St. Eustache, where the tracery is one of the weakest points.

Beaumont-le-Roger : Windows.

Another was to return to geometrical patterns while eliminating pointed forms. This may be seen in the choir of the church at Beaumont-le-Roger, in combinations of circles and arches, and in the south transept of St. Eustache in hexagonal reticulated tracery. In the clearstory at Beaumont is rather later tracery differing from all earlier types by its square, unmoulded section. In one window it is treated as an interlacing ribbon, in another as a monogram.

Le Grand Andely : Rose Window.

The rose window in the north transept at Le Grand Andely is perhaps the most successful translation of a free geometrical pattern into Renaissance forms. The tracery is still moulded, and the cusps are composed of foliage.

La Ferté-Bernard : Windows.

After about 1530 unmoulded tracery came into fashion, and was largely used in a new type of design which altogether avoids the flowing lines, and to some extent the geometrical patterns hitherto in use, and simulates slender skeleton edifices. The mullions become shafts, and sometimes have capitals, the transomes become entablatures; the tracery takes the form of arches, pediments, circles, and scrolls, all of which is sometimes plain, sometimes carved. The left-hand window in this view of Notre Dame des Marais at La Ferté-Bernard shows an example. The same slide shows two types of balustrade, one formed of statuettes in an arcade, the other of an inscription in open-work.

St. Nicolas and St. Jean, Troyes : Windows.

This interior view of a window from St. Nicolas, at Troyes, illustrates a combination of radiating geometrical tracery with a surface pilaster treatment, while that from St. Jean shows a skeleton edifice system apparently inserted into a Gothic window opening.

Windows without tracery are almost exclusively used in the advanced Renaissance period, and were found even earlier, as, for instance, at St. Pierre, Caen, till the recent restoration.

Gisors : South Tower Windows.

These windows are on the south face of the south tower at Gisors and light the baptistry in its lower story. The vesica shape above and the two round-headed lights below form a beautiful group, and are beautifully detailed.

Cathedral, Limoges : Rood Screen.

The next group of slides give examples of church fittings at various periods. This is part of the Francis I. rood screen in the Cathedral of Limoges, photographed from the cast in the Trocadero Museum.

Arques : Rood Screen.

This is an early Henry II. rood screen from the church of Arques, near Dieppe. The rood screen by Jean Goujon and Pierre Lescot in St. Germain l'Auxerrois, in Paris, now destroyed, would seem to have somewhat resembled this.

Cathedral, Laon : Chapel Screens.

This slide shows a portion of one of the magnificent set of stone screens which extend the whole length of the aisles of the Cathedral of Laon, and were put up in the reigns of Henry II. and his sons.

Pont-Audemer : Font.

This slide shows a Francis I. font from the Church of St. Ouen, at Pont-Audemer, in Normandy.

St. André-lez-Troyes : Reredos.

This is a wooden reredos from St. André-lez-Troyes. Its delicate tracery of foliage and scroll work, its cherubs' head cuspings, and, in fact, the whole of the detail is exquisitely executed. It is gilt with blue backgrounds.

Cathedral, Sens : Reredos.

This is another Francis I. reredos in stone from a side chapel in the Cathedral at Sens.

Ecouen : Altar.

The chapel at Ecouen was fitted up by Jean Goujon for the Constable Montmorency. This altar of his design and execution has been removed to Chantilly.

Ecouen : Organ Loft.

The organ loft, also by Goujon, is still in position at Ecouen.

Having run through a number of examples of translations of more or less Gothic motives into Renaissance language, and of isolated Renaissance features applied to half or wholly mediæval churches, we come to those churches of the advanced Renaissance which were designed as a whole in plan and section as well as elevation on classic lines. I wish it were possible to show you an equally rich series of examples. Unfortunately they do not exist, for the culmination of the advanced Renaissance coincided with the outbreak of the civil wars which brought building to a standstill. So far as we know, no church of any size was designed, still less executed in this style, and our only examples consist of half a dozen private or mausoleum chapels, of which only the two at Anet are still standing.

Mausoleum Chapel, Anet : Plan.

I take this chapel first, though later than the other, because it is the only non-domical one of the group. It was built probably about 1560 for Diane de Poitiers outside her château of Anet, to contain her tomb, by an unknown architect, possibly Jean Bullant.

Mausoleum Chapel, Anet : Section.

It does not seem to have been designed by Philibert de l'Orme, but may possibly be the work of Jean Bullant. It is a simple form of basilica, consisting of a rectangular nave with a barrel vault, two square sacristies, and an apse with a semi-dome, and thus forming a rough cross. Its façade is one of the most classical fronts of the

Mausoleum Chapel, Anet : Elevation.

century, and decidedly monumental in effect. At the Revolution the tombs of Diana and her two children were opened and the bodies, which were found intact, dragged out. The abundant golden hair of the royal mistress was divided up to make souvenirs for the members of the revolutionary committee who presided over this revolting act.

Château-Chapel, Anet : Plan.

We turn now to the domical chapels. These all differ from the previous examples of domes in that their plans are entirely conditioned by the dome. One of the earliest was a so-called temple in the park at Villers-Cotterets by Philibert de l'Orme, no longer existing. A circular chamber with hemispherical dome was surrounded by three rather more than semicircular apses whose domical roofs of corresponding form butted against the walls of the central chamber. The entrance on the fourth side was through a pedimented portico. It was for this portico that de l'Orme invented his so-called French order of banded columns.

This slide gives the plan of the château-chapel at Anet, likewise by de l'Orme, built about 1540, and decorated with sculpture by Goujon. Here again we have a circular central space with hemispherical dome. It has four arms with square turrets between them. One arm forms the entrance opening into the cloister of the court of honour and has an enclosed gallery over it. The other three have curved outer walls concentric with the central space. The interior is full of awkwardnesses—the four arches in winding, the entablatures broken by the windows, etc. There is no independent façade, and the rear elevations are of no particular interest. On the other hand, the construction of the stone dome is so excellent that it has stood unprotected for nearly 400 years.

Valois Mausoleum, St. Denis : Plan.

On the death of Henry II. (1557) Catherine de'Medici instructed her architect, Primaticcio, to design a mausoleum for her husband, her children, and herself. This resulted in one of the purest and completest classical buildings that France ever possessed. It was begun in 1570, but was unfinished when the Valois dynasty came to an end with the murder of Henry III. The Bourbons did little to it, and it fell into disrepair, and was destroyed by the Regent Orleans in 1719. It stood on the north side of the Abbey church at St. Denis, and was entered from the transept. The royal tomb occupied the centre, those of the other princes were to stand in the trefoil chapels which radiate from it.

Valois Mausoleum, St. Denis : Section.

Over these a gallery ran round the upper part of the central hall, which had a hemispherical stone dome itself covered by an independent timber dome, the first of its type in France. The elevations, treated in a manner recalling those of the Louvre, were excellently proportioned and doubtless beautifully detailed. The interior was

Valois Mausoleum, St. Denis : Elevation.

enriched with coloured marbles and the work of the great sculptors of the day. The tomb of Henry and Catherine can still be seen in the Abbey. The monument as a whole was a worthy resting-place for the ashes of the Valois kings, whose love for art had so large a share in endowing France with the glorious

buildings of her Renaissance in its various stages.

In conclusion, I would only remark that whatever my hearers may think of the opinions I have expressed, some at least among them may have been convinced by the slides, if they were not so already, that the Renaissance church architecture of France is one which may be studied with profit, and will desire to visit its examples."

Mr. J. W. Simpson, in proposing a vote of thanks to the lecturer, said that the paper formed a complete introduction *in parvo* to French Renaissance architecture, and he hoped the Association (with Mr. Ward's permission) might see its way to print it with its illustrations, and issue it for the use of students. It was of the greatest importance to the students that they should learn design and history together, and that exercise in the styles of British periods should be varied by the use of the motives used by Continental artists at corresponding epochs. Unless this was practised the standard of criticism—that was their ideas of the beautiful—became cramped and insular, and they learnt to judge everything by a purely English standard. It was most true that without some knowledge of the people who used them—and of their customs, their costume, and so on—their buildings would never give up to one their meaning and interest. He wondered how many of their students who looked with a polite wonder upon the saloons of Versailles and Fontainebleau had ever sat down to dissect out a piece of Louis XIV. design and realised its extraordinary fitness and beauty as a frame to the folk who occupied and used it. There was too great a disposition to divide the study of architectural design into two sections—on the one hand, the architecture of ordinary practice, dealing with those picturesque possibilities of the pigstye which are studied in certain schools after the manner of the minor English masters; and on the other hand, the sort of design one must learn for examinations, but which was of no real use to one. For such they must grope in dreary, musty tomes, containing letterpress in unintelligible tongues, to perhaps recognise some of it with surprise when later on they went abroad. Mr. Ward's paper, with its logical historical structure, was a very admirable example of method in the study of design.

Mr. E. P. Warren, who seconded the vote of thanks, said that the study of the French Renaissance had always had a charm and interest for him, the more so as he had been interested in the contemporary history and the chronological sequence of the development of the Renaissance in different countries. The difference between this country, due to our insular position, and France was very marked, and we were kept as much behind France as France was behind Italy. Mr. Ward attached the date 1507 to one of his illustrations, and that was exactly contemporary with the middle period of the building of the Great Tower of Magdalen College, Oxford, and that building, although it dragged on into the XVIth century, was thoroughly pronounced English Perpendicular Gothic without a touch of the Renaissance anywhere about it. There were, of course, in England some very striking instances of French work. At Christchurch, in Hampshire, there was the Salisbury tomb, which was as French as it could be, and full of a highly refined French Renaissance detail such as they had seen on the screen, and such as could be found in many parts of France. Again, there was the monument in Brede Church, Sussex, dated 1537, of a warrior in armour, such as might be found in a French church, a thoroughly Renaissance tomb. And there was a little French Renaissance work in the old church at Chelsea; while there was the remarkable instance in woodwork in the stalls at King's College, Cambridge, where the French influence was strong, and where part of the carving was French, though the general type of the joinery appeared to be English. As to the sequence of the French Renaissance dealt with by Mr. Ward, the more interesting periods were the beginning and the end. A good deal of French Renaissance of the middle period seemed to be crude and foolish. Classical ornaments were put in because, as it seemed, they had to be put in; entablatures and architraves were placed where they were not wanted, where they had no meaning, and where it was difficult to put them in. This was certainly not sound architecture, because the first quality required in architecture, after ordinary structural expression, was that of inevitableness and a thing performing its function in a proper way. As to Mr. Simpson's suggestion as to preserving the paper and the illustrations for use of the Association students, he thought it was a very good one.

Mr. Alan Potter said he had great admiration for Mr. Ward's knowledge of the subject, but less admiration for his subject. It seemed to him that instead of a marriage or union between the two styles that there was a constant struggle between them—between the Gothic principles of construction and the Italian Renaissance principle of overlaying things with pseudo-Classic detail developed on a different basis of construction—a struggle in which the Gothic principles certainly held their own for a very long period and never entirely disappeared. As had been said, the earliest and the latest examples they had seen that night were the best. In nearly all the early work of François I. the best examples were clearly those in which the Gothic idea was paramount, and after the medley of Henry II.'s time it was relief that we came to the comparatively pure Classic work. The subject struck him as being of more interest to the student of religious and social history than to the practising architect of the present day, as the lessons to be got from studying such a period were nearly all in the direct negative, *i.e.*, what not to do. The struggle between the two architectural styles at the time dealt with seemed to represent also the struggle between the intellectual classes and the masses. Mr. Ward spoke of craftsmanship being most conservative, and perhaps rightly so. The Renaissance, whether in church and civil architecture, meant the end of that continuous run of tradition which we were accustomed to in mediæval times, and gave the start to book-learning and self-conscious æsthetics in place of craftsmanship and individual inborn good taste. We heard a good deal nowadays from people who said that they were not educated up to Wagner or Turner. It struck him that the commencement of the Renaissance was the commencement of the time when people had to be educated up to things—the difference between self-consciousness and subconsciousness. In French Renaissance generally the most interesting part was the curious alternation of periods of greater Italian influence and the vernacular style, which had a concurrent existence right up to the Revolution, although the former was more promment at times, and one could see the combination of what he might call the Renaissance "grand manner" and the vernacular in the Petit Trianon at Versailles. Mr. Ward said that the work was not the result of taste but of intellect, and that seemed to express it exactly. He should like to ask Mr. Ward if there was any architectural connexion between France and Spain during the time of François I. It struck him that there was some similarity, but that might be due to the fact that in each case there was the same origin. As to the Salisbury chantry at Christchurch, he had always thought that that was Italian work on an English Gothic structure, in the same way that a great deal of early work in France was Italian.

Mr. H. P. G. Maule said he should like to support Mr. Simpson's suggestion as to printing the paper and the illustrations in a concrete form. They might do as they had done with Mr. Henderson's paper on Ste. Sophia. Issued in that way the paper would be of much help in the school. He agreed also with what Mr. Simpson said as to the importance of making students design in style—of taking classical or whatever period they might like and making the students design more or less on those lines and principles; and to do that carefully and properly, and to get the best results from students and for students to get the best results for themselves, it was most desirable to have a clear exposition of the historical development such as Mr. Ward had given that night. It was difficult for students to get at the gist of things when they were asked to design in a style, for they more or less copied without appreciating the principles; but where there could be a clear exposition, each point being illustrated, the value to students could not be over-rated. Those were the lines they went upon in the Association schools. The student was taken from the very beginning, and he was invited and instructed to design in every one of the greater periods, so that he should at the end of his two years at least have tried to reproduce the past, in a way, in his own designs; and it was only by those methods that he could gain an appreciation of the best structural and best decorative forms and get an idea of their full significance. Mr. Ward's paper was of the greatest value on those lines.

Mr. Rudolph Dircks supported the vote of thanks, and said that as a logical exposition of a certain phase of architecture the paper was a remarkable one.

The Chairman, in putting the vote of thanks to the meeting, said he rather inclined to agree with Mr. Potter that the architecture resulting from the combination of the two styles was not the most beautiful, though it was always interesting. The ingrafting of the Renaissance on the Gothic in English architecture was a little more interesting and beautiful. As to Mr. Simpson's suggestion, they would see what could be done in the matter.

The vote of thanks having been heartily agreed to,

Mr. Ward, in reply, said he had no special knowledge of the Renaissance in Spain, but he should imagine that there was no particular connexion between the architecture of France and that country. Probably their resemblances were due to the fact that they were both from the same source, and that Italian.

The Chairman said that the next ordinary general meeting would be held on February 18, when a paper would be read by Mr. E. Swinfen Harris, entitled "The Life and Work of William Butterfield."

The meeting then terminated.

NOTES FROM FRANCE.

REFERENCE has already been made to the proposal to form a canal round the south side of Paris for the purpose of taking off flood water from the Seine. One of the forms in which this proposal is to be considered is to utilise the old ditch of the fortifications on the south side, which should be connected with the river by two large cuttings, one upstream, at Ivry, the other downstream, at Issy. The canal thus formed would be always filled with running water, and bordered with large quays, and supplied with numerous drawbridges. It is thought that this would be useful in ordinary times, as well as forming an additional outlet for flood water. There is also some talk of reviving the old project of "Paris Porte de Mer," and constructing a large and deep canal between Suresnes, Chaton, Saint-Germain, and Poissy, which would cut through the numerous windings of the Seine. The afforestation of the whole upper basin of the Seine is also under consideration.

The two gardens in the Place du Carrousel, Paris, situated behind the Gambetta monument, have been thrown into a single square surmounted by a stone balustrade. A decorative sculptured fountain is to be erected in the centre of the square, for which M. Larche has been commissioned to finish the model.

The pictures, tapestries, statues, and other objects of art left to the nation by the late M. Osiris have been deposited in the Louvre, but a part of the collection will probably be sent to Malmaison, which was also a legacy of M. Osiris.

The Municipality of Nice have voted a sum of three million francs for a new hospital, and have also decided on the carrying out of various other important public works, among which will be the enlargement of the "Promenade des Anglais."

The death is announced of M. Gustave Raulin, architect, and member since 1879 of the Société Centrale. He was promoted to be "Officier" of the Legion of Honour on the occasion of the 1900 Exhibition, when he also received a "Grand Prix" as an exhibitor.

NOTES FROM ROME.

A PROJECT was recently mooted in Rome for making permanent connecting passages between the Palace of the Senator, which occupies the south side of the Palazzo del Campidoglio and the two lateral palaces. It was represented by the municipal authorities that for social functions it had been necessary to unite these three buildings by passages of a temporary nature, and that in view of the approaching celebration of the fiftieth anniversary of the Italian kingdom it will be as well to substitute a permanent structure. It was at once objected that the symmetry of the Piazza, one of Michelangelo's finest architectural works, would be ruined, and a unanimous vote against the project by the Superior Council of Fine Arts has, one may believe, disposed of it at any rate for the time.

Unluckily, a proposal to bring before the same Council the question of Piazza Colonna was just five minutes too late. Still it is to be hoped that the unanimous vote of one of the chief architectural societies of Rome, and the pressure of public opinion, will suffice to put an end to this scheme also. It involves the construction on the opposite side of the Corso of a large, long palace with a dome in the centre, half of which dome only will be visible from Palazzo Colonna. It does not seem altogether clear why the space gained by the demolition of the Palazzo Piombino should not be permanently occupied by a garden, of which there are none in this part of Rome. This was indeed temporarily the case during the recent visit of a foreign sovereign, with considerable success, and one does not see why the experiment should not be repeated.

Lack of funds and time have, it seems, combined to render it impossible to excavate the site of the future Passeggiata Archeologica as far as it has recently been cleared, *i.e.*, along the Via Appia from the Arch of Constantine to the Church of S. Cesareo and the Baths of Caracalla. A number of modern buildings, some of them of no interest, have been demolished, but the picturesque and peaceful character of the whole district is rapidly being changed, and the walls which hitherto flanked the road have been thrown down, so that the whole of the space between the Caelian and the lower slopes of that portion of the Aventine which is dominated by the Church of S. Balbina is now open. But unluckily the desire to arrange what is now a wilderness of rubbish in time for 1911, and the cost of expropriation, which has been considerable, make it necessary to abandon the idea of excavating the site. It is therefore to be laid out in gardens and wide avenues, at an estimated cost of 120,000*l*. One hardly sees how the "archæological" side of the proposed park comes in, and there is always the danger that gardens which have cost so much may come to be regarded as permanent. Still less is the utility of the avenues clear, inasmuch as they lead to a district almost uninhabited.

PICTURE EXHIBITIONS.

THE LEICESTER GALLERIES.

THE water-colour drawings and pictures by Mr. Maxwell Armfield, at this Gallery, form a rather curious medley of fancies, figure subjects, architecture, and religious pictures—the latter the least good. Most of the water-colours are slight in execution in low tones of colour—indeed drawings rather than water-colours, and are very clever, and the architectural subjects very well treated. "Scherzo" is an odd fancy with two capering nude figures and a mountain background; the *motif* of it seems to have been the colour combination of the nude figures with the deep purple of the mountain and an absolutely black creature of some kind at the foot of one of the figures, forming the strong point in the combination. "Because there was no room for them in the inn," a modern subject painted in a very modern way, has a good deal of character; and the small work "Scarlet Lilies" makes an excellent decorative panel. Altogether a very clever but rather eccentric collection. In the other room are a number of water-colour drawings of landscapes from different countries by Mr. Macwhirter; nothing eccentric here at all events; all good sound landscape painting, and the white birch-tree stem, which used to occur in all this artist's pictures, is only in evidence once or twice. We do not know, however, that there is one work which rises to the highest interest of landscape-painting, though they are all good.

THE FINE-ART SOCIETY.

"Water-colours of Northern and Central India," by Mr. Frank Dean, is a collection of the kind which has mainly topographical interest, as a representation of local landscape effect, figures and buildings. "Leaving the Fort, Gwalior," gives a fine perspective representation of one of the most remarkable pieces of Mohammedan architecture in India; and there are studies of Indian landscape effect which convey the impression of truth. Mr. Elgood's water-colours of "Gardens" do not differ much from similar collections of this class of subject which he has formerly exhibited here and elsewhere; his talent in painting garden effects, especially of old-fashioned gardens with masses of clipped hedges and trees, keeps its place as excellent work of its kind; but there is a little sameness about it.

THE GOUPIL GALLERY.

Mr. Shackleton's remarks on the objects of Art, prefixed as a Preface to the catalogue of his pictures at the Goupil Gallery, are very interesting and there is much in them in which we quite agree; but idealism in language is one thing, idealism in painting is another, and we must say the paintings in the inner room which are intended to represent in poetic form conceptions as to Life and "The Mystery of the Infinite" do not appeal to us much, and we do not feel that they are a success, except in respect of colour. The sketches and studies of single figures in the outer interest us much more. The larger pictures seem to attempt, in a somewhat vague manner, more than painting can well express.

THE CARPENTERS' HALL LECTURES:

THE JOINER'S CRAFT.

THE fourth lecture of the present series of lectures on "Arts Connected With Building," arranged by the Carpenters' Company, was delivered in Carpenters' Hall, London-wall, E.C., on Wednesday last week, when Sir Brumwell Thomas lectured on "The Joiner's Craft," and showed a large number of lantern slides in illustration of his remarks. Mr. J. Classon Preston, Past-Master, presided.

After some introductory remarks the lecturer said that we found in the course of history that the crafts of this country had received two strong artistic impulses which had had very far-reaching effects. The first came from France and gave an impetus which resulted in three centuries of mediæval craftsmanship, during which the ecclesiastical type of work was the style not only of the Church work of the country, but also of the ordinary everyday work of the period. The second impulse came from Italy, and resulted in three centuries of Renaissance craftsmanship, during which the XVth century revival of letters in Italy began to influence this ecclesiastical type of work in England, and finally displaced it by a style of work termed Renaissance; the character of the work and the mode of execution differing essentially in the two periods. In the mediæval period—the XIIIth, XIVth, and XVth centuries—stone was the chief material, and woodwork followed stonework forms very closely; and, like stone, it was worked out of the solid. There was very little woodwork remaining of the earlier part of this period with the exception of roofs, porches, etc., which properly belonged exclusively to the carpenter.

One of the oldest pieces of joinery in the Kingdom was the Coronation Chair at Westminster Abbey. It belonged to the great Edwardian period, and the influence of the stone form was clearly seen. The choir stalls and pulpit at Winchester Cathedral also showed the stone influence. The screen to the "Spring Pew" at Lavenham Church, Suffolk, was a delightful example, in which the craftsman had revelled in producing beautiful form. It was impossible to imagine anything richer than the tracery of the fan vaulting and pinnacle work of the upper portion. The ecclesiastical work of this period was very rich in elaborate craftsmanship, and the Bishop's Throne and Stalls at Exeter were among the most elaborate we possess. Nothing could well be richer than the foliated arches with rich cusping, crockets, pinnacles, etc. The joinery of the period was often enriched with painting, and the screen at Ke sey, Suffolk, was a charming example. The quatrefoil openings below with engaged shields, and the traceried openings above with foliated cusping, were Gothic windows in wood between which the wood mullion was formed as a buttress, the painting taking the place of stained glass. Richness of craftsmanship knew no bounds, and the elaborate font cover at All Saints' Church, Sudbury, was a Gothic spire of the richest type in miniature translated into wood. At each stage are pointed tracery windows, buttresses, and pinnacles, the whole being crowned by a pointed spire with carved crockets. The XVth century was indeed remarkable for its wealth of woodwork, and the rood-screen at Atherington, in Devonshire, shows how the traditional design was steadfastly adhered to; each division was an open traceried window, below which was represented wall panelling, and above were portions of fan vaulting with ribs and panels of wood. The rood-loft over was even richer in treatment on the lines of the lower portion.

The XVIth century marked the beginning of the Renaissance. Young, handsome, rich, the power of the nobles broken, the power of the King absolute, Henry VIII. vied with young King Francis of France in the patronage of art. Lavish in expenditure, his accounts showed the employment of many foreign artists and workmen, with the result that the influence of the revival of classical learning and classical art filtered into the country, and this employment of Italian workmen by the King began to influence the ornament, carving, etc., of the work of the period.

In the screen of King's College, Cambridge, which was accounted the finest example of woodwork in England, there were distinct traces of this Italian influence, and it was quite clear from the detail that it must have been executed by foreign workmen,

as the English workmen at this time could not have acquired the necessary skill.

The age of Elizabeth was one of great national prosperity. The people had grown in riches, much of it derived from the suppressed monasteries, the population had increased from four to five millions, and was nearly equal to London of to-day. The country was at peace, and every peaceful art prospered. By this time the Italians had left the country, probably owing to Henry's quarrels with Rome, and a new influence had begun through the coming of German workmen, who brought with them the Low Country interpretation of the Renaissance. Religious persecution no doubt brought them here, and they settled in great numbers. Freedom from strife brought desire for domestic comfort, impossible while security from assault was the first consideration for house building, and an amiable contest began as to who should build the largest and most beautifully. Audley End, in Essex, was one of the finest examples of an Elizabethan Hall. The house formerly possessed a gallery 226 ft. long, which was taken down at the beginning of the XVIIIth century, but it still remained a fine and stately mansion. The caryatides at the doorway in the screen were typical of the German influence. The carved mantelpiece was, in the usual manner, decorated with an architectural order, and the coat-of-arms bulked large in the design.

The hall screen was one of the features of the period and that at Chastleton House, Oxford, had the two doorways in similar position to those of the mediæval period. The Ionic order beside the doors and the obelisk and open fret crowning the entablature were indicative of the period, which was also shown in the charming little clock-case between the doors. The Universities of Oxford and Cambridge still possess a number of fine screens of this period, and that at Jesus College was one of the best known. Here also the doorways were placed between the columned order, and the entablature was very richly carved. The treatment of the small panel in the wall space between the doors marked a step in the progress of panelling, and showed how the adoption of the "true mitre" in the place of the "mason's mitre" lent itself to the fanciful forms in panelling peculiar to Jacobean joinery and furniture. The dissolution of the monasteries and the distribution of their treasure put an end to church building, but existing churches were lavishly decorated with examples of the work of this period. Croscombe Church, Somerset, had a delightful screen with columns and entablature and fretted cresting and bold Royal arms.

An interesting feature belonging to the time was the internal porch such as that at Broughton, in Oxfordshire. It was designed to give access from one room to another without entering the intermediate room. There were a number of these in different parts of the country, and the one at the Red Lodge, Bristol, had the Ionic order beside the door and caryatid figures in the frieze.

The dining-room door at Levens Hall, in Westmorland, was a very rich example with lozenge-shaped panels within the square panels. On either side were caryatid figures on high pedestals, and the doorhead had the owner's coat-of-arms with supporters. The bay window at Little Moreton Hall, in Cheshire, showed how traditional design still lingered. Here in a county remote from the influence of the Renaissance we found the mediæval wood mullion in the window, the walls panelled in a simple manner, the ceiling joists showing the true construction. The fireplace at Blickling Hall, in Norfolk, was characteristic of the sumptuous taste of the time. The open dog-grate was flanked with coupled baluster columns, and the overmantel was supported by the typical rounded cornice, and showed again the caryatides and the family arms.

In the development of house-planning the hall, which originally served as general dining-room, underwent considerable change. When the long gallery came into vogue the principal apartments were transferred to the first floor, and their stateliness needed more sumptuous approach than the mediæval stone stair, and the broad easy wood staircase became one of the features of the hall. That at Castle Ashby, Northamptonshire, showed how the craftsman lavished all his skill in the carved entablature and fretted panel. The newels in this instance were carried up as ornamental columns to support the landing over. There were innumerable examples of these staircases in various parts of the country. The staircase at Hatfield, in Herts, was one of the best known and one of the best executed.

This was a very picturesque period in English craftsmanship, but these staircases, lavishly overladen with a riot of carving and moulding, could not be accounted of greatest artistic value. Invention was at its lowest—in fact, the resources of the master-carpenter, so far as design was concerned, had almost come to an end, and he was relying upon repetition of elaborate pattern-book detail to gain effect. In the early period, the Mediæval period, the tradition had grown up by degrees. The English craftsman was sure of himself, sure of his craft. But this was gone. The old tradition was almost lost, and the full understanding of the Palladianism which was coming was beyond the powers of the craftsman designer. It was in the air, but its full comprehension necessitated a scholarship quite outside his powers. The consequence was, that in the latter half of the century the designer was beginning to detach himself from the craftsman. The end of it saw the beginning of a new order, when the responsibility for design as apart from execution was transferred from the craftsman to the designer, to be known hereafter as the architect; and at the moment England produced a genius of the highest order, and, as Walpole said, England had at last produced one great artist, Inigo Jones. Not a great deal was known of the first thirty years of his life, except that he travelled and studied in Italy, and thoroughly absorbed the spirit of Palladian design. The double cube room in Wilton House, which he rebuilt for the Earl of Pembroke, was probably the most beautiful room in the country, and the banquet hall was unquestionably the finest stateroom. The fireplace in the double cube room was quite magnificent.

Ashburnham House, a little house in Dean's-yard, was a delightful example of planning and delicacy of detail. The staircase was quite a masterpiece; in fact, the whole interior was most carefully arranged and designed, and the doorway off the first floor landing showed great care and refinement. There was also a screen at Kirby Hall which was probably the work of Inigo Jones, and showed the same calm sureness and restraint as his work at Wilton.

Inigo Jones's great successor was a man full of scholarship and accomplishment. Sir Christopher Wren, although to begin with he was almost an amateur, when the time came it was a case of the hour and the man. The organ-case of St. Paul's Cathedral was a most beautiful piece of design, and would stand as a monument to the skill of the craftsmen who fashioned it. It was most exquisitely carved, and the big masses imparted to the whole a fine sense of grandeur rarely obtained. The caryatides and the central scroll pediment supporting the Royal arms were carved out of solid material, and not built up, as was usual in masses of their size and projection. The choir stalls showed the panelling behind with its rich cornice and gallery front. Again was to be noticed the great projection of the carving, and it was well to remember that for forty years before this time little heavy construction and no such masses were obtained for carving. In looking at these views one must not in admiring the carved work overlook the beauty of the joinery which was the foundation of the whole conception.

Having referred to the pulpit and sounding-board of St. Stephen's, Walbrook, the east view of the chapel at Trinity College, Oxford, the Orangery at Kensington, two doorways in Laurence Pountney-lane, Clifford's Inn, the walls of the chapel at Farnham Castle, the court-room of the Brewers' Company in London (where was a fine example of bolection moulded panelling), the lecturer said, as to the practical indications of the progress of the craft, first of all there was the essential difference between Mediæval and Renaissance craftsmanship, that the earlier forms were worked out of the solid wood in the same manner as stonework. From the XVIIth century onward, in place of the heavy-axed, or hewn, oak the principal characteristic of the construction of the joinery of the period was that of building up. In the XVth century the work was cut out of the solid plank; in the XVIIth the required projection was obtained by placing one piece of wood on another. In the earlier period the panel moulds were worked on the solid styles and rails, and met at the angles in a mason's joint. Later on they met in a true mitre, but the moulding was still worked on the solid. Later still we had the mitred moulding planted on, and, latest of all, the bolection moulding. One of the greatest changes, however, was the invention of sash windows early in the XVIIth century; the introduction of ground and rebated jambs to doors and, above all, the geometrical staicase, the continuous handrail requiring considerable skill in geometry to find the lines by which it was set out.

As to where the work of the carpenter ended and that of the joiner began, in the early days we found simple conditions in which were concentrated in one man—the master-craftsman—all the qualities that to-day were distributed over a number of trades and professions. The modern architect, builder, carpenter and joiner were the successors of the mediæval master-craftsman, each claiming a share in the rich tradition of woodwork that we have.

A hearty vote of thanks was passed to the lecturer and the proceedings terminated.

WESTMINSTER CITY COUNCIL.

At the fortnightly sitting of the Westminster City Council on Thursday last week the following, amongst other matters, were dealt with:—

Building Works.—It was decided to offer no objection to the applications of Mr. G. T. Jell for the rebuilding of 6, 7, 8, and 9, Bury-street, and 17, Rider-street; and of Messrs. Waller & Son, for the re-erection of Lloyd's Bank premises at the corner of St. James's-street and King-street.

Safeguarding the National Gallery.—Early in 1908 the Local Government Board gave their sanction to the sale of the Orange-street Baths, as it was found there was little demand for them in the neighbourhood. In April, 1908, an offer to purchase the property was accepted, but the Commissioners of Woods and Forests had declined to permit of the erection of a theatre, for which the purchaser required the site, in view of the great importance of safeguarding the National Gallery in every way, and the intending purchaser had therefore declined to proceed further in the matter.

Forms of Contract.—The Contracts Special Committee reported that on representations made by the Works Committee they had inquired whether there were any recognised brands or marks of Canadian spruce timber. They were informed that the brands or marks upon Canadian spruce timber do not generally signify the quality of the timber. In the contracts for wood-paving works and supply of wood-paving blocks the forms provide for tenderers to state the brands or marks and the port of shipment of the timber they propose to supply. They had added the following words to the specifications for paving works and wood-paving blocks:—"In the case of Canadian deals tenderers need not necessarily make mention of the brands of timber from which they propose to cut blocks to satisfy the specification." On the suggestion of the City Engineer, they had also amended the specification for paving works as regards the time to elapse between the laying of the concrete foundation and the "heading up" and "paving in" of the blocks.

FEBRUARY 12, 1910.

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N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

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MEETINGS.

FRIDAY, FEBRUARY 11.

London County Council Central School of Arts and Crafts (Southampton-row, W.C.).—Lectures on Historic Arts and Crafts. Mr. E. F. Strange on "Lettering." 6 p.m.

Junior Institution of Engineers.—Meeting with the Architectural Association Debating Society at 18, Tufton-street, Westminster. Papers: "Architectural and Engineering Considerations in Town Planning," by Mr. Stanley Hamp and Mr. Frank R. Durham. 7.30 p.m.

SATURDAY, FEBRUARY 12.

Junior Institution of Engineers.—Anniversary Dinner at the Hotel Cecil. The President, Eng.-Vice-Admiral Henry J. Oram, C.B., in the chair. 7.30 p.m.

Architectural Association.—Third spring visit to (1) the new Y.M.C.A. building, Tottenham Court-road. Mr. Rowland Plumbe, architect. 1.30 p.m. (2) British Museum extensions, Mr. J. J. Burnet, architect. 2.30 p.m.

MONDAY, FEBRUARY 14.

Royal Institute of British Architects.—Mr. Edward Warren, F.S.A., on "George Frederick Bodley." With lantern illustrations. 8 p.m.

The Incorporated Clerks of Works' Association (Carpenters' Hall, London-wall).—Paper by Mr. Arthur E. Henderson on "Byzantine and Turkish Decoration in Constantinople." 8.15 p.m.

Royal Society of Arts (Cantor Lectures).—Professor W. Watson, D.Sc., on "The Petrol Motor"—II. 8 p.m.

TUESDAY, FEBRUARY 15.

British Museum (Lectures on Ancient Architecture).—By Mr. Banister Fletcher. XIX.—"The Tombs, Aqueducts, and Bridges of the Romans." 4.30 p.m.

The Illuminating Engineering Society (Royal Society of Arts, John-street, Adelphi).—Discussion on "Glare, its Causes and Effects," opened by Dr. J. Herbert Parsons, F.R.C.S., at the last meeting of the Society, will be resumed. The chair will be taken by the President, Prof. S. P. Thompson, D.Sc., F.R.S. 8 p.m.

Institution of Civil Engineers.—Further discussion on paper on "The Sheffield Water-Supply and Statistics Relating Thereto," by Mr. L. S. Mortlock Marsh, and on "Statistical and Experimental Data on Filtration," by Mr. W. R. Baldwin-Wiseman, M.Sc. 8 p.m.

WEDNESDAY, FEBRUARY 16.

Carpenters' Company, Carpenters' Hall, London-wall (Lectures on Arts Connected with Building).—Mr. Lawrence Weaver, F.S.A., on "The Art of the Lead Worker." 7.30 p.m.

Edinburgh Architectural Association (Associates' Paper).—Mr. Y. Cameron, A.R.S.A., on "Gothic Architecture." 8 p.m.

Builders' Foremen and Clerks of Works' Institution.—Ordinary meeting of the members. 8 p.m.

Northern Architectural Association.—Mr. Frank W. Rich on "The Flavian Amphitheatre, commonly called the Colosseum, Rome." With illustrations. 7.30 p.m.

THURSDAY, FEBRUARY 17.

Architectural Association (Camera and Sketching Club).—Mr. Michael Bunney on "Georgian Architecture." 7.30 p.m.

Carpenters' Hall, London-wall (Free Lectures).—The Rev. Walter Marshall, M.A., F.S.A., on "English Mediæval Fonts and Monuments." 8 p.m.

Institution of Electrical Engineers.—Mr. F. Hope-Jones on "Electric Clocks." 8 p.m.

Royal Society of Arts (Indian Section).—Mr. G. Owen W. Dunn on "The Bombay Housing Question." 4.30 p.m.

FRIDAY, FEBRUARY 18.

Architectural Association.—Mr. E. Swinfen Harris on "The Life and Work of William Butterfield." 7.30 p.m.

The Leicester and Leicestershire Society of Architects.—Mr. S. P. Pick on "Drainage and Sanitary Fittings." With illustrations. 8 p.m.

London County Council Central School of Arts and Crafts, Southampton-row (Lectures on Historic Arts and Crafts).—Mr. E. F. Strange on "Book Ornament." 6 p.m.

Institution of Civil Engineers (Students' Meeting).—Vernon-Harcourt lecture on "Irrigation Works," by Sir B. Hanbury Brown, K.C.M.G., M.Inst.C.E. 8 p.m.

SATURDAY, FEBRUARY 19.

Aberdeen Architectural Association.—Mr. J. A. Ogg Allan on "A Recent Architectural Tour in the United States." 7.30 p.m.

Edinburgh Architectural Association.—Visit to Edinburgh and District Water Trust's new filter works, Fairmilehead.

Illustrations.

A SHAKSPEARE MEMORIAL THEATRE.

WE give this week the full illustrations of the able design by Mr. A. G. Horsnell, for which the Institute of Architects have awarded the Soane medallion this year.

The following is the author's description of his intentions in working out the design:—

"The subject set, 'A Shakspeare Memorial Theatre,' was of much interest, but the conditions imposed made the realisation a matter of some difficulty, the size of the site for the actual building allowing but little room for the usual appurtenances to a theatre of that nature and importance.

In this attempt it was realised that something had to be sacrificed, and it was thought it should not be the auditorium, which was, therefore, kept ample and spacious, and although the remainder of the room allocated to the public is perhaps sufficient for an audience of about 600, the problem would have been simpler, and there would have been more possibilities in the treatment, had there been more space.

The horseshoe plan, with the supports on the line of the gallery front, was adopted for the auditorium as being the type that best allowed of a regular form for the ceiling, at the same time providing some visible means of support for it.

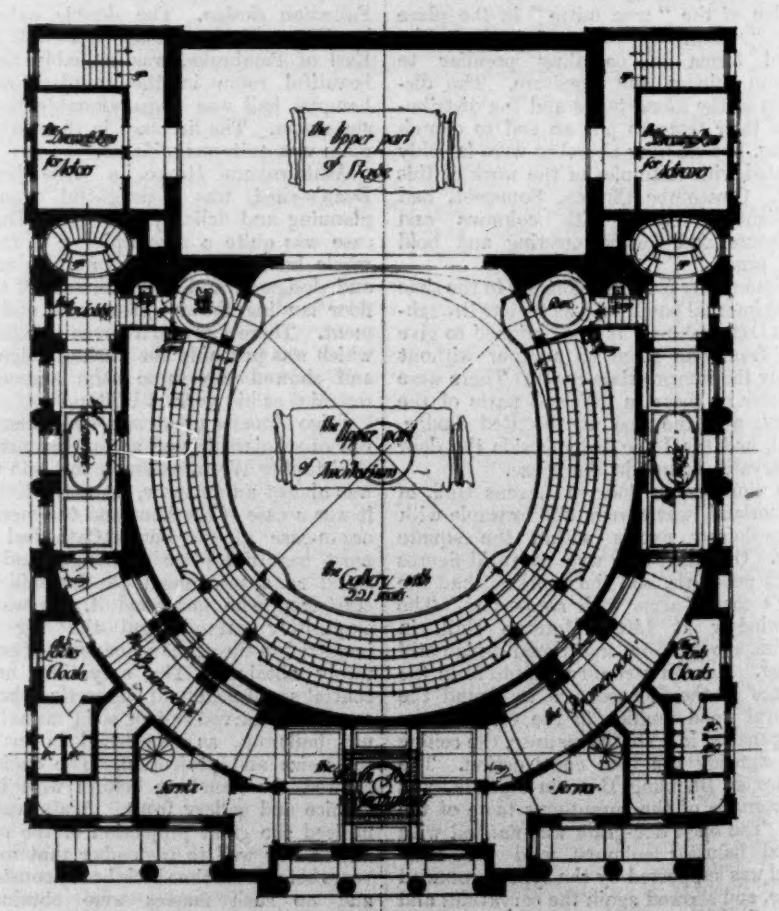
In dealing with the exterior of the theatre the endeavour was to express the three leading parts of the plan; whilst the surround to the forecourt was treated to give some variety as well as interest to the approach, and also to form a setting for the sculptured monument.

The materials for the building externally were, stones for the walls, copper or lead for the roofs, with gilding applied to various portions of the enrichments; the figure of 'Fame' surmounting the monument was also intended to be gilded.

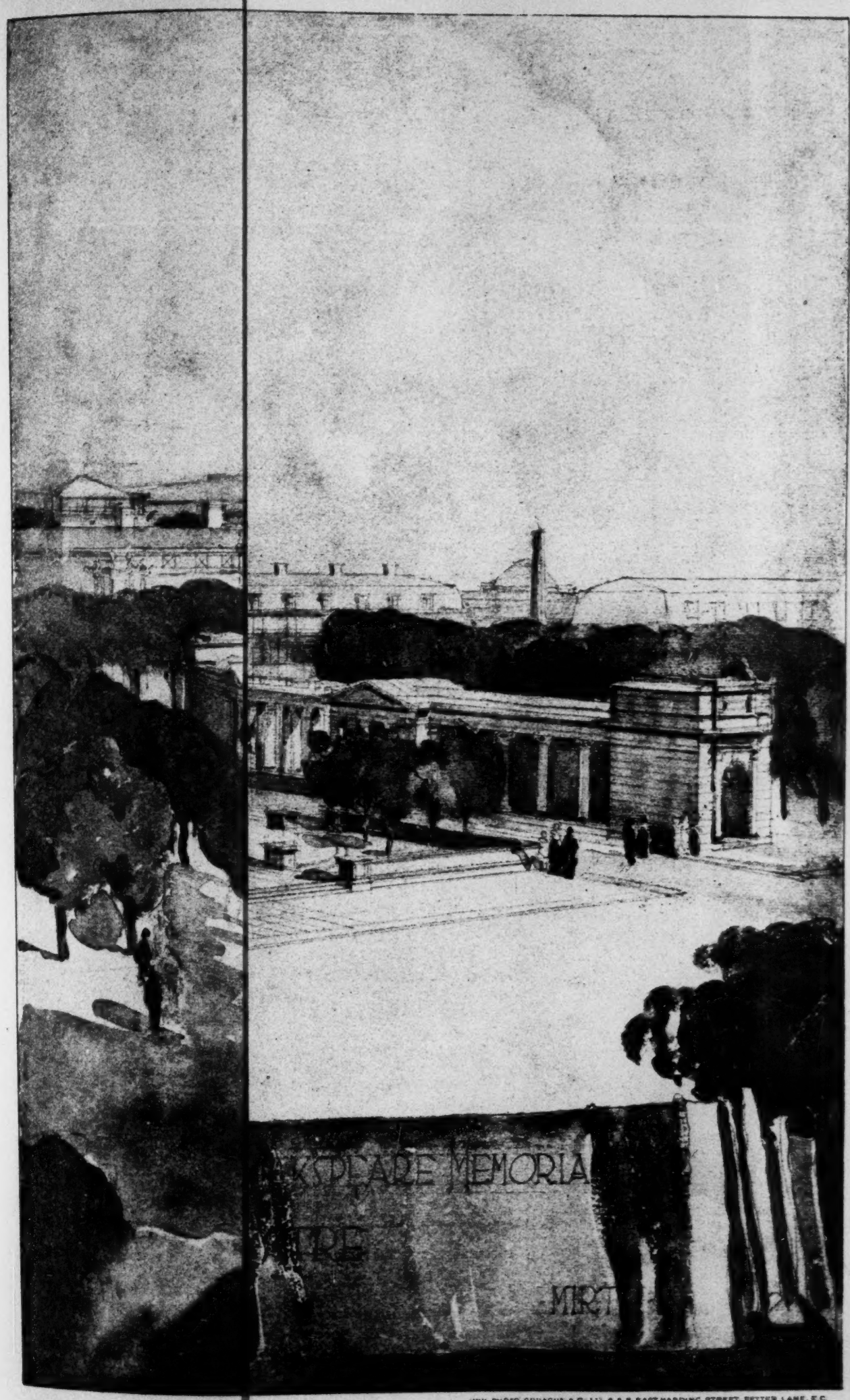
Internally, a plaster treatment was the one generally adopted, the large plain surfaces being provided for a scheme of colour decoration."

In regard to Mr. Horsnell's complaint of insufficient space, it is obvious that a small theatre was intended, and we may point out that the site given is larger than that of several existing theatres, English and Continental, which seat a considerably larger number than six hundred, the accommodation required in the case of the Soane competition.

One point we may mention in regard to the treatment of the columns in the portico, viz.: that, considering that these are Ionic columns placed between antæ, or what are equivalent to antæ, and that there is no column placed at an outer angle, it is a pity that the author adopted the treatment of the volute at an angle of 45°, which was only first introduced to get over the difficulty of employing the Ionic column at an outer angle, when it had, so to speak, to face both ways. The genuine Ionic capital, which has a great deal better appearance, was essentially a capital for columns between antæ, in which the front view of the capital was the important one, and the side or roll of the volute was little seen. It would have been the same here, and the effect would have been more artistic if the true Greek form of the capital had been employed, with the



Design for a Shakspeare Memorial Theatre. Upper Plan.



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Soane Medallion, R.I.B.A., 1910

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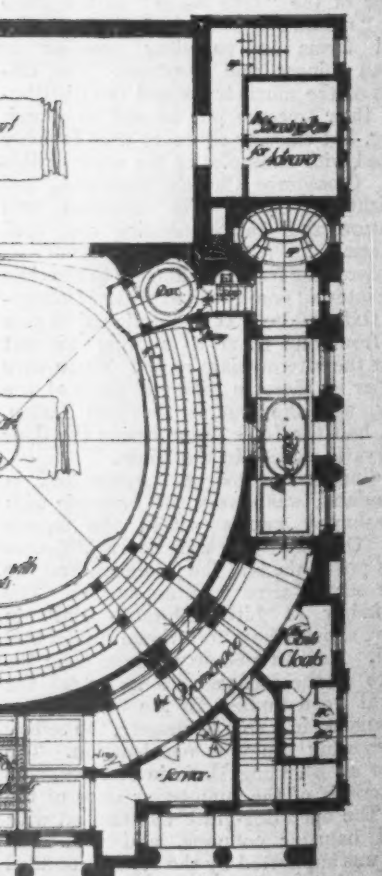

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DESIGN FOR A SHAKSPEARE

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Soane Medallion, R.I.B.A., 1910.

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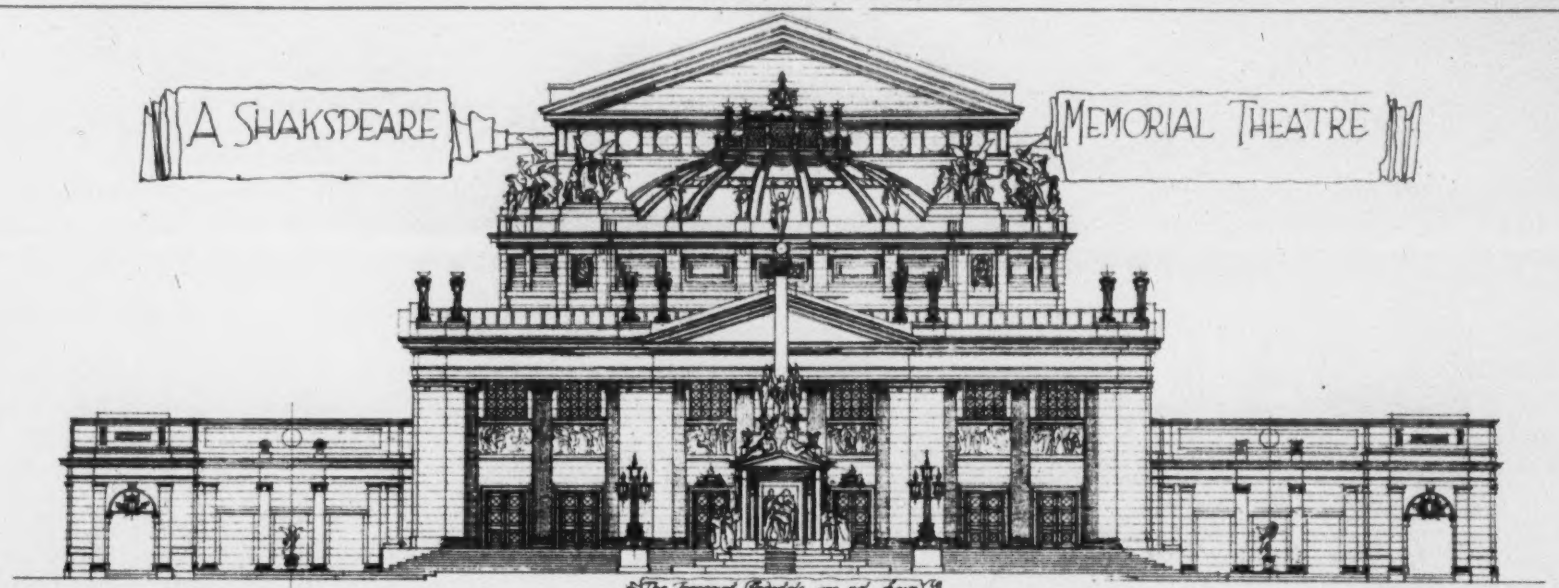
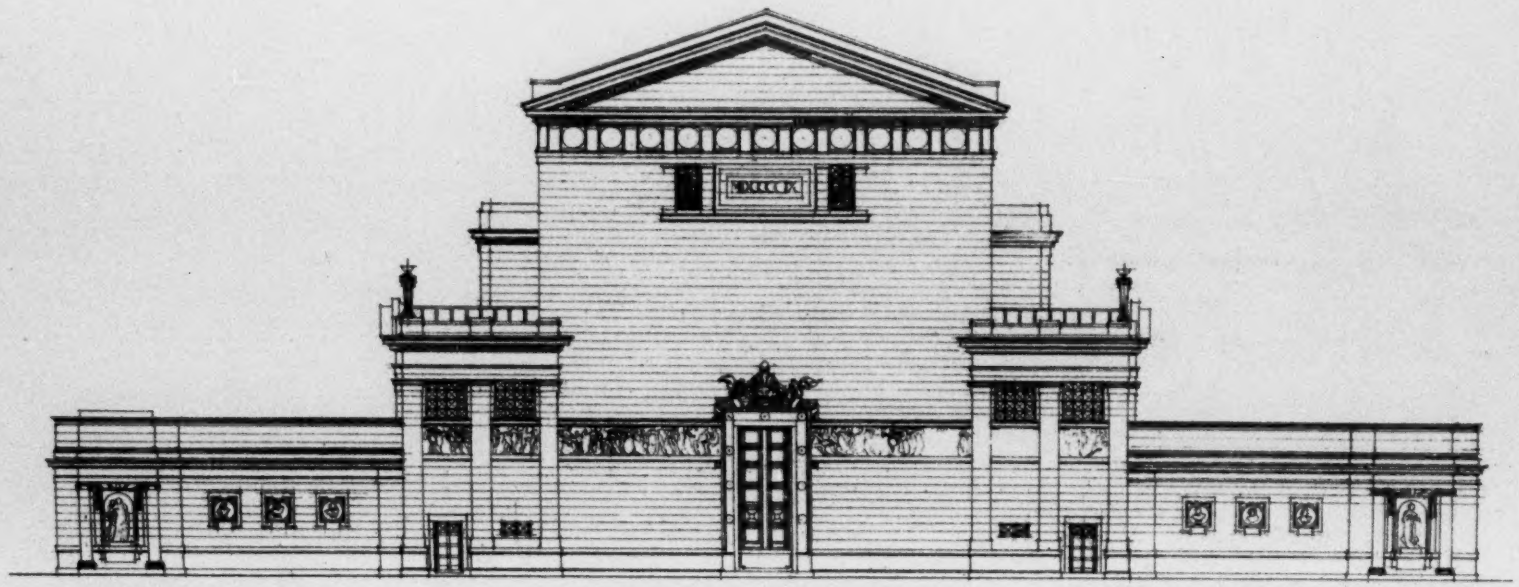
SHAKSPEARE MEMORIAL THEATRE—By Mr. A. G. Horsnell.

PERSPECTIVE VIEW.



SOUTH ELEVATION

MARTH



NORTH ELEVATION

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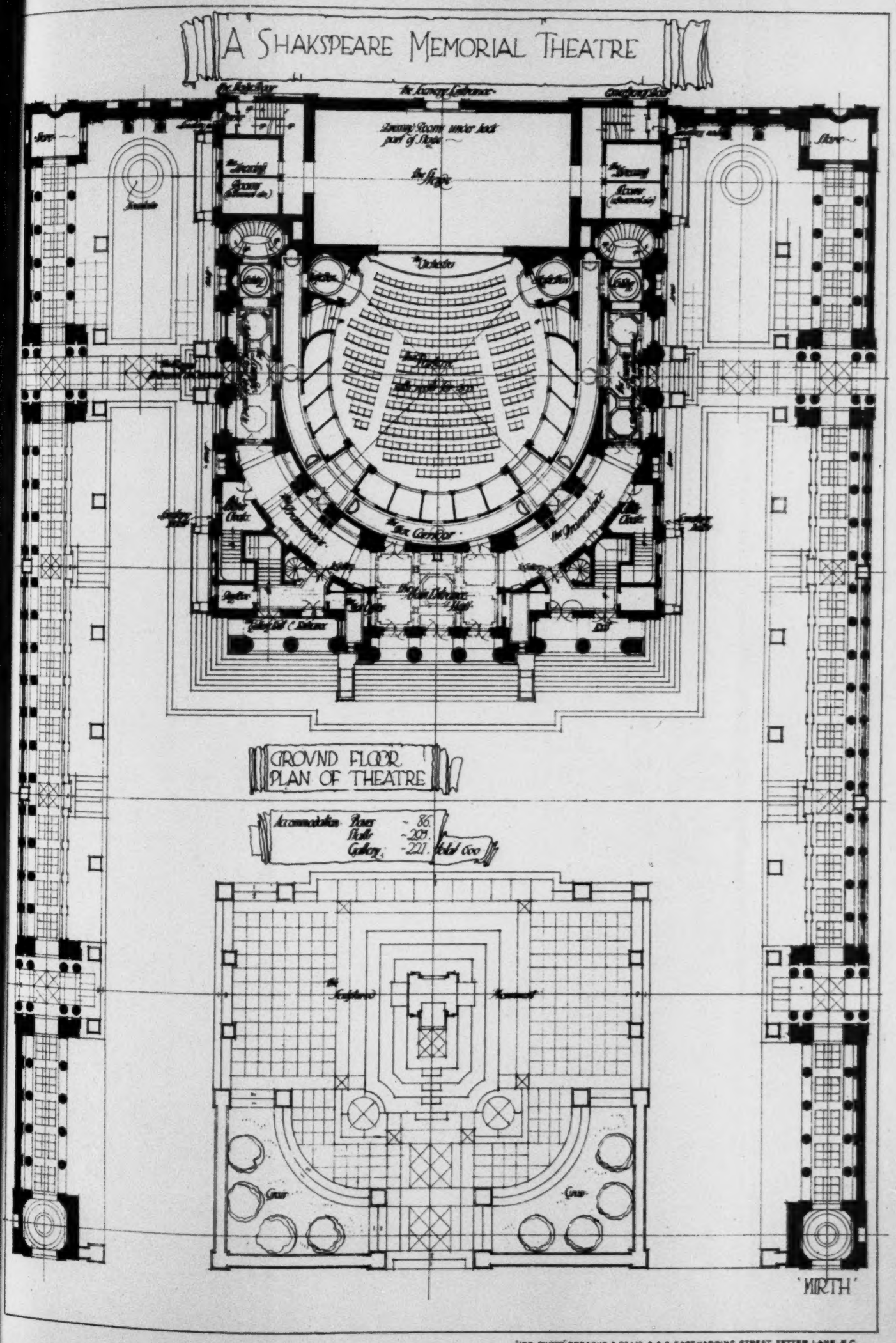
Soane Medallion, R.I.B.A., 1910. DESIGN FOR A SHAKSPEARE MEMORIAL THEATRE.—By Mr. A. G. HORSNELL.



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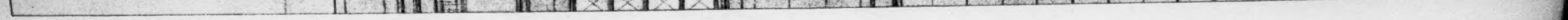
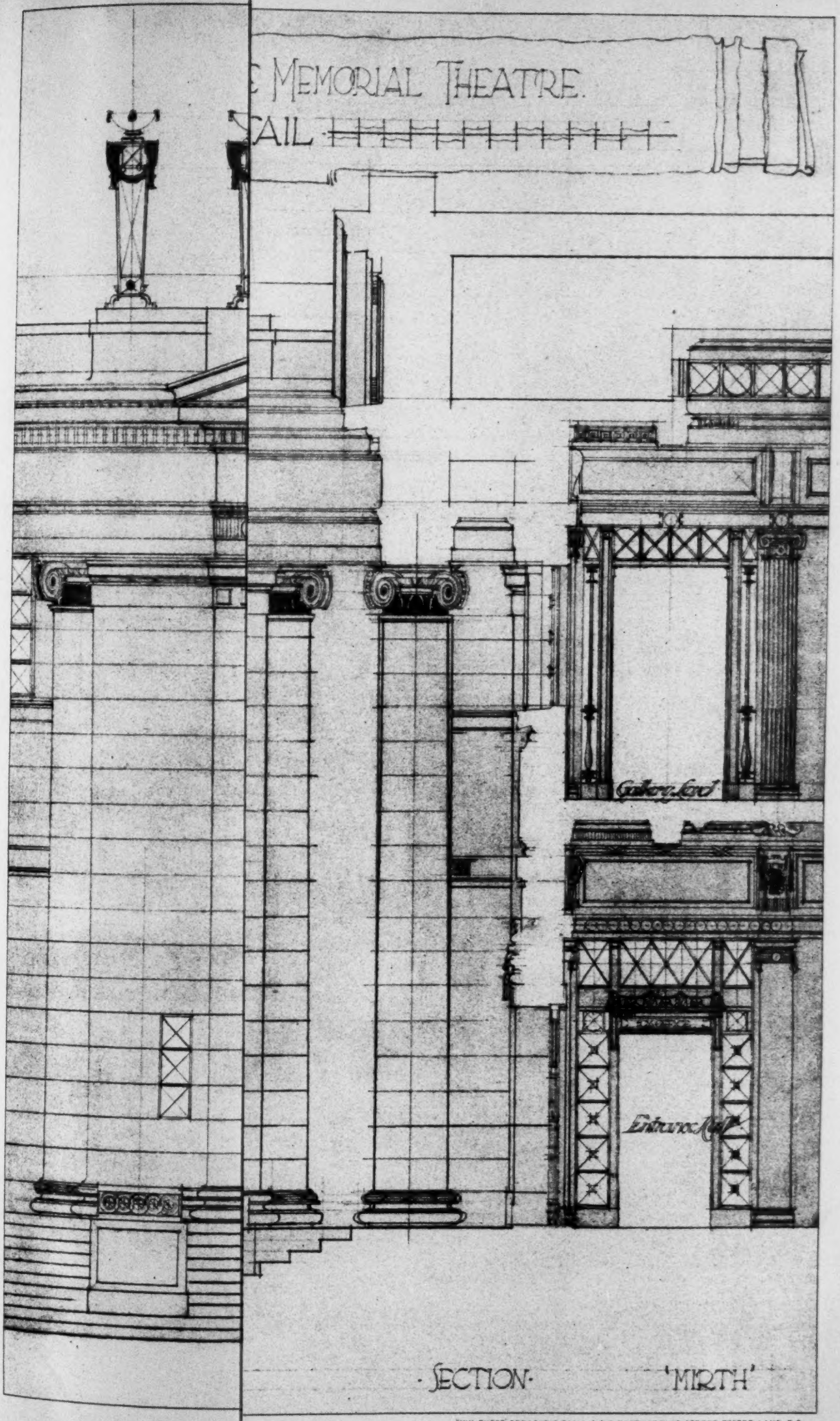
Soane Medallion, R.I.B.A., 1910.

GROUND PLAN.





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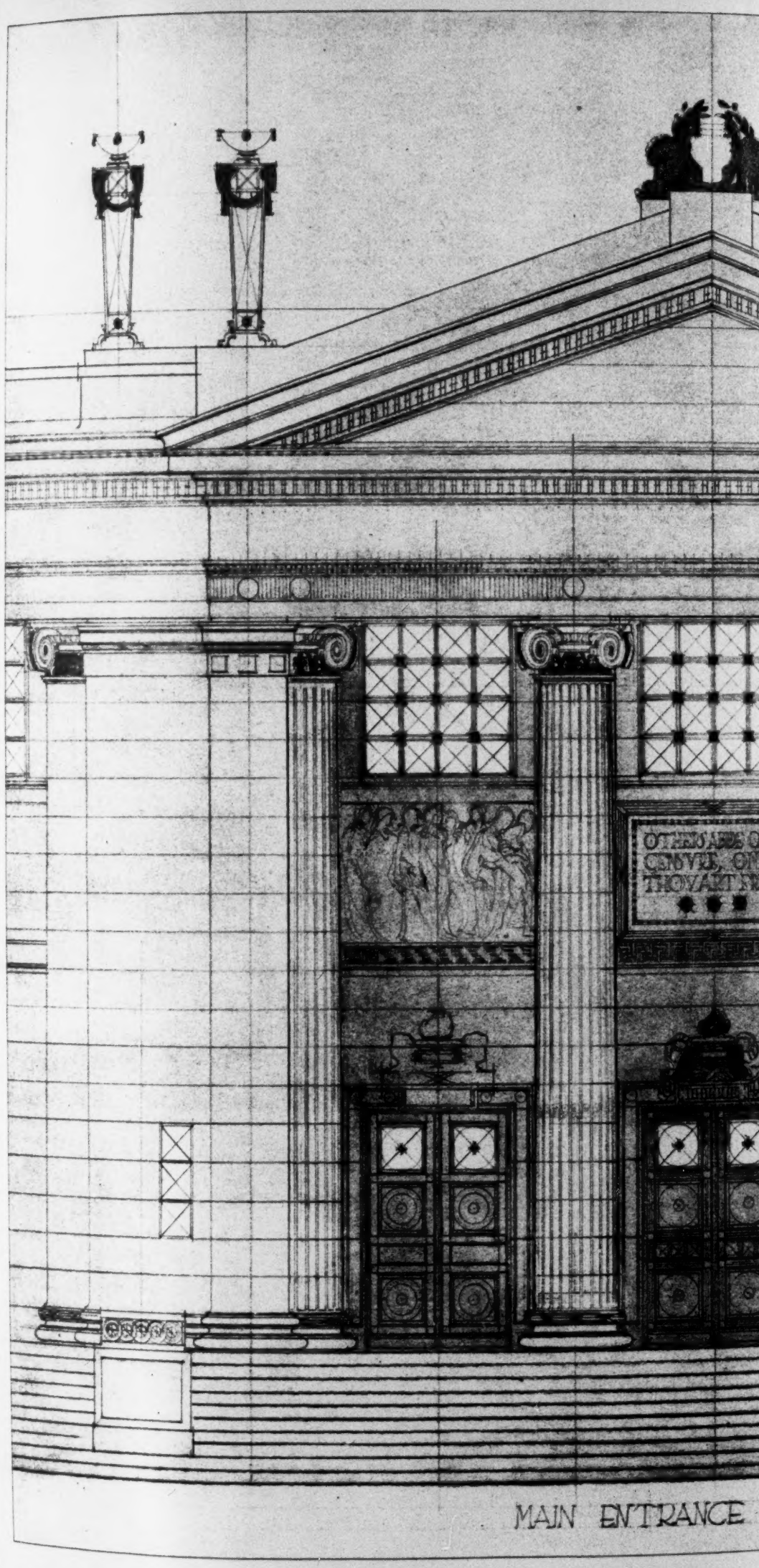

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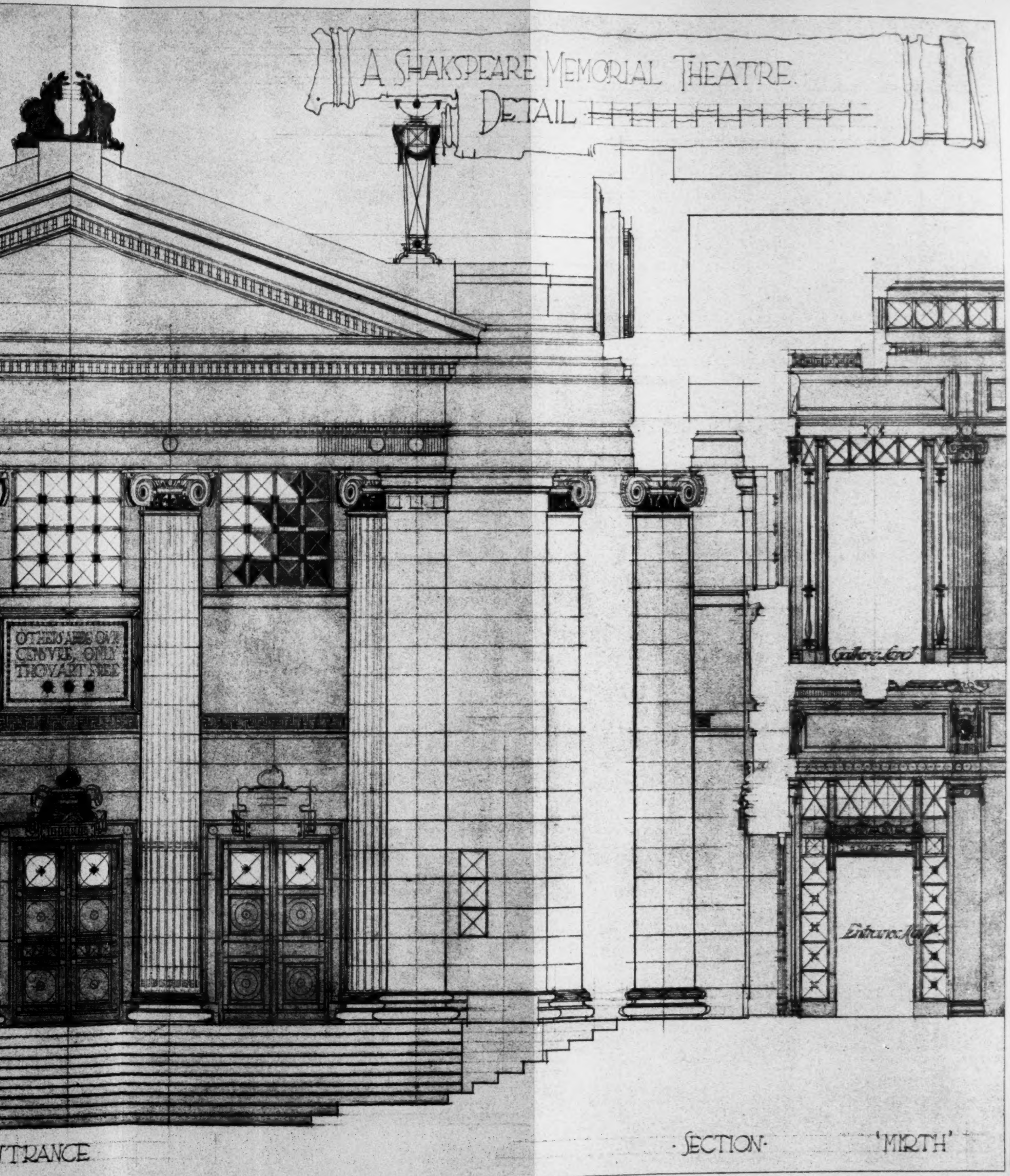

DESIGN FOR A SHAKSPEARE MEMORIAL THEATRE.—By Mr. A. G. Horsnell.

DETAIL ELEVATION.

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It is to be regretted that there are no scales on the drawings. They were apparently omitted because the scale for the geometrical drawings was fixed by the instructions. But (as we have repeatedly urged) a geometrical drawing, even where the scale is supposed to be known, should always have a drawn-out scale on the paper, for the convenience of those examining the drawings. In the case of reproducing drawings to a reduced scale, the want of a drawn-out scale is a serious drawback; and though it may be said that architectural drawings are not made for the purpose of being reduced for illustration, it often happens that they have to be so treated, for other purposes besides publication in a journal. The practice of the French architectural schools, where scales are never inserted, is not one to be commended or imitated.

It would be a useful lesson if the Institute would insist in future on scales being put on drawings for competitions, by way of getting students into the habit of doing it.

THE SURVEYORS' INSTITUTION:

HOUSING AND TOWN PLANNING.

AN ordinary general meeting of the Surveyors' Institution was held at the Institution, No. 12, Great George-street, on Monday, when the discussion on Mr. Davidge's paper, "Town Planning Systems," and Mr. J. Willmot's paper on "The Housing, Town Planning, etc., Act, 1909," was concluded. Mr. A. R. Stenning (President) occupied the chair.

Mr. E. Howard opened the resumed discussion, and said the subject of town planning divided itself into two main branches—firstly, there was planning for the improvement, reconstruction, and extension of existing towns and cities; and, secondly, plans for the creation of entirely new towns. He would confine himself to the second branch, and hoped to show that important as the first branch of the subject was, especially in an old country like theirs, yet the second branch was also of great importance, not only from the point of view of new towns, which would at no distant date be built in this country, but because of the direct and indirect effects which must be produced on the old towns from the force of the example of the new. Letchworth was the first and only garden city, because, with all deference to the remarks of Mr. Vernon, he maintained that a garden city could not be built on one acre or on a thousand acres of land. The results obtained from the first garden city were not due to Act of Parliament, but to friendly bargaining between the Company and various land owners; to friendly business relations between the Company and the Great Northern Railway and various local authorities; to the active co-operation of manufacturers and traders; to the financial aid of the Land Drainage Company and the Public Works Loan Commissioners; and to the assistance of a body of residents and friends interested in the work. An industrial town which was simply an industrial town was a very undesirable place to live in, and tended to become mean if not squalid. Hence the idea suggested itself to the originators of the scheme at Letchworth that the new town should be planned so as to unite with industrial elements residential elements, and combine in one experiment the advantages of town and country life. Mr. Howard then described the Letchworth scheme. Apart from the men engaged in the gas and water and other works of the kind, there were now over 1,000 workmen engaged in the various industries, and although the housing of these had been difficult in view of their small capital, yet it had been well grappled with, and he held that the best and most roomy cottages which had been built of recent years at a cost of 150*l.* were those on the estate. Up to date they had a population of 6,250; the number of houses built were 1,096; factories and workshops built, 35; shops built, 61; new churches, chapels, and places of worship, 4; public halls, 3; hotels, 6; new roads made, over 9 miles; water mains laid, 17½ miles; gas mains laid, 12½ miles; sewers laid, 12 miles; open spaces, parks, etc., about 200 acres: capital value of buildings erected, 365,300*l.* In addition there were both elementary and secondary schools, political and social clubs, telephonic, telegraphic, and postal facilities, swimming-bath, reading-rooms and library, golf course, cricket, football, and tennis grounds, water works, gas works, and electric power generating station. It was true they had paid no dividend yet, but the company had paid interest on half its capital, and it would be easy to demonstrate that had the Company been started on its career with the capital it asked for it would ere now have been paying a good dividend. In spite of all the difficulties incidental to so new a venture the Company, he believed, would begin to pay a dividend soon, and by that time they would have demonstrated that with sufficient capital for rapid development the establishment of new towns on wisely chosen areas was—at least, from the point of view of the State—a most profitable enterprise.

Mr. Howard Martin thought everyone would agree that the Act was well meant, and would benefit those land owners who tried to administer their property with a desire to benefit their tenants as well as themselves. If only the Act was administered in a right spirit he believed it would be productive of much good, and its defects, which would become apparent as time went on, could be gradually removed by subsequent amendment. The chief objection to the compulsory powers seemed to be to the fact that the arbitrator who was to settle the questions would be appointed by the Local Government Board. That was not a serious objection with one qualification. In the past the Government Departments if left to themselves had approached all these matters in a proper way, but there was a growing uneasiness with regard to the Government Departments being left alone, and lest the exigencies of a coming election should influence persons in appearing to put pressure on Government Departments to make appointments without a single eye to the merits of the case or of the person to be appointed. If things went too far in that direction then there would be great danger if Departments were left to appoint arbitrators to deal with what was, after all, their own case. He thought there was also a defect in the Act with regard to the clause regarding landlords being responsible for a house being habitable, and in the case of houses let on lease at 40*l.* a year the curious anomaly would exist that whilst the landlord would be responsible under the Act for the future upkeep of the house, yet the tenant would be responsible under the lease. At Eastbourne the town planning had been done by two surveyors, as the land was held by two owners, and it had been well done, but he did not know of a worse case of development by small owners than that at Newquay in Cornwall. These two places gave an admirable example of the leasehold system, and the control it gave when the property was large enough as against the effects produced by the small ownership system, where every man was left to do what he thought right in his own eyes. Whilst he believed that if approached in a right and reasonable spirit the Act would do good, but he strongly urged that only evil would come from approaching it in a wrong spirit. Many people approached the question as if it was purely an artistic and architectural problem, but they had to remember that whilst most of those present would feel the influence of a beautiful house, yet the average man simply looked for brightness, cleanliness, and convenience, and his artistic sense would probably be pleased by a blend of red brick work and blue and white glass in the panels of the door.* There was danger also in attempting to lay down schemes for thirty years hence. He agreed that the existing by-laws regarding the width and making of streets were quite unreasonable, but, on the other hand, suggestions had been made which went too far the other way. Gardens of any size would not compensate for too narrow roads. A considerable portion of the suburbs would be occupied by poor people, who had neither the means nor the inclination to tend a garden, and nothing more disfigured a place than neglected gardens.

Mr. Fowler endorsed the remarks of the last speaker with regard to roads, and pointed out the importance of dealing with areas outside towns with regard to which no complete scheme could be formulated. He suggested that the local authorities should have power conferred upon them to make by-laws to protect their roads from injury and disfigurement by building operations, and to make the houses be set back so that when the time came the roads could be widened at a cheap rate.

Mr. King considered the ideal of Mr. Davidge a lofty one, but as a surveyor with many years' practical experience he thought it was impossible owing to the great cost. However much they might like to see beautiful buildings, they must not disregard the main element, which was that they should be adapted for the purpose for which they were intended.

Mr. H. S. Stewart suggested that the Institution should appoint a committee of members who had had experience of town-planning, who might prepare a memorandum giving advice in dealing with the whole subject.

Mr. Davidge, in reply, said he would like to have seen a little more definite suggestion as to the way the Act was to be carried out by surveyors, and as to how it would affect the growth of the suburbs, and more especially the London suburbs. Mr. Leslie Vigors had paid a well-deserved tribute to Wren's far-seeing mind, but even Wren could not have seen the present growth of London, and what the next century would bring forth nobody knew. They could only try to be prepared. They could not expect to do more at first than regulate the general directions of the main roads, and the details would come later. It would be necessary, perhaps, to prepare for each town not one town plan but many town plans for particular areas, which would eventually shape themselves into one composite whole. He hoped, however, they would not follow into the errors of German town planners of making a cast-iron plan which was to last for ever.

Mr. Willmot said that Mr. Unwin had pointed out that there was nothing in the Act to prevent owners submitting plans under the ordinary by-laws in such a way as to interfere with future town-planning. He did not say there was anything to prevent them, but he did say that owners would not be anxious to develop their property in accordance with the ordinary by-laws, because probably they would do it much cheaper under town-planning schemes, for if they submitted a reasonable scheme there would be a great relaxation of by-laws. With regard to Mr. Woodward's point as to open spaces, he thought they were well safeguarded by clause 73.

The President said he hoped the new officer appointed by the Local Government Board would be sympathetic in regard to any scheme which might come before him. His own view was that many of the towns laid out by competent surveyors had already provided for many of the points raised by the Act. He did not believe they would have many new garden cities to provide for; but they would have to deal with land round existing villages and towns. By the foresight

* Then he ought to be taught better, by example as well as by precept.—ED.

of their forefathers they found the main roads already provided. What they as surveyors had to do in dealing with land laying between main roads was to advise their clients so to develop it as to give a fair return to the owner, and also be a benefit to the public. He had for years advocated that the by-laws with regard to roads should be relaxed, but the difficulty seemed to be to know where such relaxation should take place, for there was the fear of favouritism. He agreed with Mr. Lanchester as to the planting of trees in groups rather than in planting them all along the roads, and he had in his mind Beckenham, which was well planned, but where the trees had overgrown the roads and now had to be mutilated. If they were approached by the local authorities to lay down some rules they would do so, but he thought they would be going beyond their limits if they did this without request.

REGULATIONS WITH REGARD TO APPLICATIONS UNDER PART III. OF THE LONDON COUNTY COUNCIL (GENERAL POWERS) ACT, 1908.

THE following are the regulations as to additional cubical extent, etc., recommended by the Building Act Committee of the London County Council as mentioned in our report of Tuesday's meeting of the Council:—

1. No application for consent to the provision of additional cubical extent shall be entertained in respect of a building which is or is to be in more than one occupation.

2. All consents shall be subject to such fire-extinguishing appliances being provided as may in the opinion of the Council be necessary, and to direct telephonic communication being established with a London Fire Brigade station if required by the Council.

3. Particulars of the methods of heating, lighting, and ventilation proposed to be adopted shall be submitted.

4. Arrangements for lessening the danger from fire in premises in respect of which consent is given shall be properly maintained. Premises will be liable to inspection by the chief officer of the London Fire Brigade to ensure such proper maintenance.

5. In dealing with applications in respect of buildings of the various classes set out hereunder, the following principles shall be considered in conjunction therewith. In any case they may be varied or other conditions imposed, as the Council thinks fit. These regulations are to be considered in conjunction with the provisions of the Act, and in no way as a modification of those provisions.

(A) As regards buildings not more than one story in height in one occupation, and used exclusively for the manufacture of boilers or machinery in metal, and for all kinds of metal work in connexion with metal-framed structures, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The building be more than two miles distant from St. Paul's Cathedral if the operations of smelting or melting be carried on therein.

(ii.) The building, including fittings and fixtures, but excluding doors, windows, skylights, lantern lights, and their frames, be constructed throughout of incombustible materials.

(iii.) Any portion of the building used for the manufacture or storage of oils or varnishes, moulds, models, frames, patterns, or other substances or articles of a combustible nature, be properly and efficiently separated from, and not included in, the portion of the building in respect of which additional cubical extent may be allowed, and do not exceed the limits prescribed in the Act.

(B) As regards buildings of more than one story in height in one occupation, and used exclusively for the use, manufacture, or storage of non-inflammable or fire-resisting or incombustible materials, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The height of the building do not exceed 60 ft., measured from the pavement level to the upper surface of the floor of the topmost story.

(ii.) The building be not less than 40 ft. from any other building, except where it is entirely separated therefrom by an imperforate wall of the thickness required by the London Building Act, 1894, and of the full height of the higher building throughout.

(iii.) The building be constructed throughout of incombustible material, and the doors, windows, skylights, lantern lights, and their frames be constructed of fire-resistng materials.

(iv.) All floors be imperforate, except as hereinafter provided, and be furnished with scuppers to carry off water poured on during a fire.

(v.) All constructional ironwork below the level of the surface of the floor of the topmost story be protected by not less than 2 in. of incombustible material.

(vi.) All openings in the external walls or roofs, excepting staircase windows and shop windows on the ground floor when the show spaces are separated from the main building by fire-resisting enclosures, be fitted with fire-resisting frames filled in with fire-resisting doors, shutters, or glazing, a sufficient portion of the filling of the openings above the ground story being made so as to be easily opened from the outside in order to facilitate the ingress of firemen.

(vii.) Vertical shafts for staircases, staircase enclosures, lifts, hoists, shafts or trunks for pipes or wires, and other leads and horizontal ducts, be properly and efficiently separated by walls and fire-resisting doors from the divisions in respect of which additional cubical extent is required, and from any other division communicating therewith, and be so arranged that the access to such shafts or ducts from any floor shall be provided with a secondary incombustible enclosure with self-closing fire-resisting doors.

(viii.) If any vertical shafts be roofed, the roofs be constructed of light frames, filled in with thin glass and protected on the outside by strong wire guards, and the shafts be carried up not less than 3 ft. above any adjoining roofs.

In the case of a shaft not carried up to and through the roof, it be sealed over at the top with solid incombustible material not less than 6 in. thick.

(ix.) All horizontal trunks, ducts, etc., be enclosed with solid incombustible material not less than 3 in. thick.

(x.) Any portion of the building used for packing or for the storage of packages be properly and efficiently separated from the portion of the building in respect of which additional cubic extent may be allowed.

(xi.) When the building is more than two stories above the ground story, and the total extent between party walls exceeds 1,000,000 cubic ft., there be provided at least one unenclosed staircase constructed of brick and concrete, affording access to all floors and the roof through the outer air, without any internal communication with the building.

(xii.) If the building exceed 250,000 cubic ft., one-sixth at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 ft. wide.

If the building exceed 1,000,000 cubic ft., one-fourth at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 ft. wide.

If the building exceed 2,000,000 cubic ft., one-half at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 ft. wide.

If the building exceed 3,000,000 cubic ft., three-fourths at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 ft. wide.

If the building exceed 4,000,000 cubic ft., the site be an island site.

(C) As regards buildings of more than one story in height in one occupation, and used for the sale and storage or manufacture, but not for storage purposes only, of goods of a non-fire-resisting nature, or used for the purposes of a trade involving the use of materials of a non-fire-resisting nature, additional cubical extent may be allowed, subject to the provisos (i.) to (xii.) set out in paragraph (B), and provided also that—

(xiii.) The basements be entirely cut off from the ground floor and upper floors of the building and approached only by a separate means of access from the outside of the building.

(xiv.) Any lifts from the basements be adjacent to an external wall or do have no internal communication with the stories above.

(xv.) No division or cell on any floor formed by the vertical and horizontal separations do exceed 250,000 cubc ft., and the floor area of such division or cell do not exceed 20,000 sq. ft.

(xvi.) Every floor be of the thickness required by the Council, such thickness not being less than 6 in.

(D) As regards buildings of not more than three stories in height in one occupation, and used as motor garages or car-sheds, or for other similar purposes, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The building be constructed throughout of incombustible materials, and be completely separated by imperforate walls from adjoining properties.

(ii.) Any store for petrol be completely separated from the main building.

(iii.) Any portion of the main building used for the manufacture or storage of varnishes or oils or moulds, models, frames, patterns, or other substances or articles of a combustible nature be properly and efficiently separated from, and not included in, the portion for which additional cubical extent may be allowed, and do not exceed the limits prescribed in the Act.

Openings in Party Walls.

6. Applications for consent to openings larger than those allowed by the Act in party walls separating divisions of cubical extent will not be entertained unless the buildings affected be constructed throughout of incombustible materials, and unless—

(i.) The openings be fitted with double doors or shutters in accordance with the provisions of the Act at a distance apart of not less than one-fourth of the full width of the proposed opening.

(ii.) The width of all such openings taken together on each floor do not exceed one-half of the length of the party wall on each floor in which they occur.

Uniting of Buildings.

7. Applications for consent to the uniting of buildings of the warehouse class with buildings of the same class or with any other buildings, either or both being in different occupations, will not be entertained when the combined cubical extent of the buildings to be united exceeds 250,000 cubic ft.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, S.W., Sir Melvill Beachcroft, Chairman, presiding.

Loans.—It was agreed to lend Battersea Borough Council 2,005*l.* for contributions to street improvements, and Greenwich Borough Council 2,000*l.* for works in connexion with cemetery.

Schools.—It was agreed that the necessary steps be taken with a view to giving public notice of the Council's intention to provide additional elementary school accommodation for about 400 children in the electoral division of Greenwich; that a new public elementary school for about 600 children, be provided on the site of the St. John's C.E. school (Deptford).

That the necessary steps prescribed by sect. 8 of the Education Act, 1902, be taken with a view to giving public notice of the Council's intention to provide about 1,000 additional elementary school places in the Streatham district (Wandsworth); that such portion, as may be found necessary for the provision of public elementary school accommodation for about 1,000 children, of the "Furzedown" site (Wandsworth) being land at present held by the Council for the purposes of Part II. of the Education Act, 1902, be appropriated for the purposes of Part III. of the said Act.

Cubical Extent and Uniting of Buildings.—The Building Acts Committee reported as follows:—

"On October 15, 1907, the Council, on our recommendation, decided to seek the amendment of sects. 75, 76, and 77 of the London Building Act, 1894, so as to enable the Council to allow horizontal separation of buildings and increased cubical extent in buildings of the warehouse class, and to give the Council discretionary power with regard to openings in party walls, the construction and materials of fire-resisting doors, and the uniting of buildings. In the report accompanying these recommendations we suggested that it would be desirable that a statement should be drawn up and adopted by the Council laying down the principles which would guide the Council when dealing with applications for permission to erect buildings exceeding 250,000 cubic ft. in extent, etc., and an amendment that this object should be secured by the inclusion of regulations in the amending Act was lost. The required amendments of the Act having been obtained by Part III. of the London County Council (General Powers) Act, 1908, we have drafted, in consultation with the Fire Brigade Committee, the regulations submitted in the statement following this report. We have arranged with the Fire Brigade Committee that all applications made under Part III. of the Act of 1908 shall be dealt with by us alone as far as possible in accordance with these regulations, if approved by the Council, but that in the event of our decision with regard to any application being contrary to the views of the Chief Officer of the London Fire Brigade, an opportunity shall be afforded to the Fire Brigade Committee of considering the matter before any recommendation with regard to such application is submitted to the Council. We recommend that regulations be made as to applications under Part III. of the London County Council (General Powers) Act, 1908."

The consideration of the matter was deferred.

[The Regulations are printed in the other columns of this page.]

Smoke Abatement.—The Parliamentary Committee reported that the Council on June 15, 1909, resolved to promote in the next session of Parliament legislation dealing with smoke nuisance in London. The resolutions referred to were as follows:—

(*a*) That, as regards nuisance from smoke in the County of London, application be made to Parliament in the session of 1910, to give effect to the following proposals—

(i.) That sect. 24 (*b*) of the Public Health (London) Act, 1891, which provides that "any chimney (not being the chimney of a private dwelling-house) sending forth black smoke in such quantities as to be a nuisance" shall be a nuisance liable to be dealt with summarily under the Act, should be amended by the deletion of the word "black."

(ii.) That the word "chimney" in sect. 24 (*b*) of the Public Health (London) Act, 1891, should be deemed to include (*a*) openings through which smoke is emitted from buildings or places in which processes of manufacture are carried on, and the chimneys of any building or place where furnaces are used in operations carried on under statutory powers; (*b*) the chimneys of any Government workshop or factory.

(iii.) That in special cases of nuisance arising under sects. 23 and 24 of the Public Health (London) Act, 1891, the proceedings in respect of any nuisance may, at the request of and

by agreement with the sanitary authority, be taken by the Council in such special cases.

(iv.) That the power of the Council to take proceedings in respect of nuisance created by sanitary authorities under sect. 22 of the Public Health (London) Act, 1891, should be extended to apply to smoke nuisance from electricity or other industrial works, or from premises used for the treatment or disposal of refuse, or for disinfecting purposes, or from baths or wash-houses or other buildings or wharves owned, leased, or occupied by sanitary authorities in which furnaces are used.

(v.) That the power of sanitary authorities under sect. 14 of the Public Health (London) Act, 1891, to take proceedings in respect of nuisance arising outside their respective areas should be extended to the Council as regards smoke nuisance arising outside the County of London.

(vi.) That the Council should be empowered to expend such money as it may think expedient, not exceeding 500*l.* a year, for the advancement of measures for the abatement of smoke nuisance.

The Committee recommended that the resolutions passed on June 15, 1909, with regard to the promotion of legislation dealing with the prevention of nuisance from smoke in the County of London be confirmed as required by sect. 4 of the Borough Funds Act, 1872, as applied by the County Councils (Bills in Parliament) Act, 1903.

APPLICATIONS UNDER THE LONDON BUILDING ACTS, 1894 to 1909.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Acts, 1894 to 1909. The names of applicants are given between parentheses:—

Lines of Frontage and Projections.

Brixton.—Buildings on the north-western side of Coldharbour-lane, Brixton, north-eastward of Lilford-road, with two bay windows (Mr. E. E. Bird for Messrs. L. Whitehead & Co., Ltd.).—Consent.

Hackney, North.—Porches and bay windows to houses on the north-eastern and south-western sides of Lingwood-road, Spring-hill, Clapton (Mr. H. Hunnisett for Mr. W. A. Goring).—Consent.

Hampstead.—Retention of an illuminated sign in front of the entrance to West Hampstead station, West End-lane, Hampstead (Mr. R. H. Selbie for the Metropolitan Railway Company).—Consent.

Hampstead.—A motor garage building on the southern side of Frognal-lane, Hampstead (Mr. D. J. Campkin for Mr. P. Brooks).—Consent.

Kensington, North.—The retention of an iron and glass covered way in front of No. 13, Pembridge-crescent, Kensington (Mr. I. Davis).—Consent.

Lewisham.—Projecting one-story shop in front of No. 57, Brockley-rise, Lewisham (Mr. A. J. Roddis for Miss J. Adam).—Consent.

Lewisham.—Bay windows and porches to three houses on the western side of Dartmouth-road, Blackheath (Mr. L. V. Hunt for Mr. E. A. Stanton).—Consent.

St. George, Hanover-square.—Extension of the period within which the erection of enclosures to the porch in front of No. 32, Hill-street, St. George, Hanover-square, was required to be commenced, be granted (Mr. G. Chappelow).—Consent.

Strand.—A projecting iron and glass shelter in front of Romano's Restaurant, No. 400, Strand (Mr. H. Tanner, jun., for Romano's, Ltd.).—Consent.

Strand.—A deviation from the plans approved for the erection of a building with projections on the eastern side of St. James's-street, Westminster, to abut also upon the northern side of King-street (Messrs. Walter & Son for the Directors of Lloyd's Bank, Ltd.). Consent.

Wandsworth.—Porches and wooden bay windows in front of houses on the eastern and western sides of Fernwood-avenue, Streatham (Mr. H. H. Foster for Mr. A. E. Balls).—Consent.

Wandsworth.—Porches and bay windows in front of Nos. 60 and 68, Manville-road, Balham (Mr. W. C. Poole for the Executors of the late A. Heaver).—Consent.

Bermondsey.—A wooden facia board over the entrance to a proposed picture gallery on the south-western side of Old Kent-road, Bermondsey, between No. 44 and the King's Arms public-house (Messrs. F. Matcham & Co. for Mr. E. M. Barker).—Refused.

Hackney, North.—Buildings on the western side of Stamford-hill, Hackney, to abut also upon the northern side of Amhurst-park (Mr. D. Morris).—Refused.

Holborn.—Three oriel windows in front of a proposed hotel building on the north-eastern side of Southampton-row, Holborn (Mr. W. E. Hazell).—Refused.

Line of Frontage and Construction.

Hammersmith.—Retention of a coffee-stall and building on the eastern side of Scrubbs-lane, Hammersmith (Messrs. Rider & Son).—Consent.

Wandsworth.—Retention of a wood and iron shed of a temporary character at No. 30, Gleneldon-road, Streatham, abutting upon the western side of Ashlake-road (Mr. J. E. Suter).—Consent.

Width of Way.

Deptford.—A forecourt fence to five houses on the northern side of Ffinch-street, Deptford, at less than the prescribed distance from the centre of the roadway of the street (Mr. E. Streeter for Mr. A. J. Paton).—Consent.

Lambeth, North.—Two one-story buildings at the rear of Nos. 23 and 25, Lambeth-walk, Lambeth, at less than the prescribed distance from the centre of the roadway of Karl-place (Messrs. Waring & Nicholson for the Trustees of the Star Mission).—Consent.

Width of Way and Projections.

Strand.—An oriel window in front of No. 15, St. James's-place (Mr. E. Hellicar for Mr. W Joynson Hicks).—Consent.

Width of Way and Space at Rear.

Hampstead.—The conversion of stabling into shops at Nos. 1 and 2, Willow-terrace, New-end, Hampstead (Mr. E. C. Brown).—Consent.

Space at Rear, Cubical Extent, and Uniting of Buildings.

Strand.—A building upon the site of Nos. 188 to 196, inclusive, Regent-street, and Nos. 53 to 56, Kingly-street (Messrs. W. Woodward & Sons).—Consent.

Recommendations marked † are contrary to the views of the metropolitan borough councils concerned.

Architectural Societies.

EDINBURGH ARCHITECTURAL ASSOCIATION.

The fifth meeting of the session of the Associates' section of the Edinburgh Architectural Association was held on the 2nd inst. in the rooms at 117, George-street. Mr. William Davidson occupied the chair. The principal business before the meeting was a paper by Mr. F. C. Mears on "The Failure of the New Town Plan." Mr. Mears, at the outset, exhibited a number of plans of the Old and New Towns of Edinburgh as they existed in the XVIIth and XVIIIth centuries, and maintained that the designers of the New Town, *i.e.*, Princes-street, George-street, and Queen-street, had failed in that they showed a lack of foresight in dealing with the valley of the Nor' Loch; in failing to provide in the original scheme for outlets, communications, or bridges, other than by the North Bridge; and in the arrangements of the houses in a continuous line east and west.

ABERDEEN SOCIETY OF ARCHITECTS.

A meeting of this Society was held recently in the Northern Arts Club, when the work submitted by architects' apprentices in the Society's drawing and designs competitions, and for the measured drawings scholarships was exhibited. Mr. Arthur Clyne, President of the Society, after some introductory remarks dealing with the character of the work shown, which he compared on the whole favourably with that of last year, delivered a short address to the students on the Choragic Monument of Lysicrates, details from which formed the subject of the competition in the junior class (apprentices in their first and second years), and then criticised the drawings, six in number, submitted in this competition. In the senior class (apprentices in their third, fourth, and fifth years) the subject set was a design for a bank and manager's house in a small country town. In this competition four designs were submitted, and the criticism of these was undertaken by Mr. James B. Nicol, who passed under review each set of drawings, and commented on the merits and demerits of the designs. The measured drawings scholarships instituted by the Society in 1904 with the object of encouraging the study of old buildings and awarded annually to two of the most promising students attending the architectural classes in Gray's School of Art, were gained this year by Mr. J. M. Easton and Mr. James Simpson, the subject selected for joint study being Huntly Castle, Aberdeenshire. The drawings were criticised by Mr. George J. Irvine, who prefaced his remarks by an address to the students, dealing generally with the importance of such work, both as resulting in valuable records of ancient buildings and as being useful from an educational point of view to the students themselves. The President then announced the names of the prize-winners in the drawing and design competitions as follows:—In the junior class, Mr. Alexander Gordon and Mr. Alexander Meffet, first and second prizes respectively, and in the senior class, Mr. Robert C. Henderson and Mr. A. M'D. Cruickshank. On the motion of Mr. G. Bennett Mitchell a vote of thanks was accorded to Mr. Clyne, Mr. Nicol, and Mr. Irvine for their criticisms and remarks.

ABERDEEN ARCHITECTURAL ASSOCIATION.

A joint meeting of the Aberdeen Society of Architects and the Aberdeen Architectural Association was held in the Northern Arts Club on Saturday, the 5th inst., Mr. James B. Nicol, President, in the chair. Mr. Alexander M'Gibbon, of Glasgow, read a paper on "Architectural Forms not Influenced by Material," controverting the opinion that physical properties, granulated, fibrous, or plastic, have been expressed in the treatment of stone, wood, cast metal, and plaster. Quite illogically-built construction has been imitated in rock-cut chambers, wooden construction perpetrated in stone, masonry copied in plaster, the arch form has been cut in lintels, the lintel form got by using a straight arch. Especially in the Classic orders was this seen. Varied materials have been pressed into service, but neither size of stone or coarseness of texture had been permitted to influence the actual result in form. Doubtless the fine marble of the Parthenon was beautiful in itself, but Palladian brick and stucco equally well exhibited design in architecture. As preliminary to the consideration of what were the moving causes of architectural development, this one of material must be dismissed; what of logic was lost by the admission was compensated for in the proof given that mind had influenced matter, never the other way about. Novel methods of construction, like ferro-concrete, would modify building, but not architectural forms. The lecture was illustrated by a series of slides supporting the lecturer's contention.

NOTTINGHAM ARCHITECTURAL SOCIETY.

The third meeting of the Designing and Discussion Club connected with this Society was held on Tuesday evening, February 8, at the Society's Room, the President, Mr. A. E. Heazell, being in the chair. The subject set by Mr. E. H. Heazell, the Visitor, was a "Vicarage House." After his criticism a discussion followed.

Engineering Societies.

THE INSTITUTION OF CIVIL ENGINEERS.

At the ordinary meeting on Tuesday February 8, Mr. James C. Inglis, President, in the chair, the papers read were:—"Notes on the Sheffield Water-Supply, and Statistics relating thereto," by Mr. L. S. M. Marsh, M.Inst.C.E.; and "Statistical and Experimental Data on Filtration," by Mr. W. R. Baldwin-Wiseman, M.Sc., Assoc.M.Inst.C.E. The first part of Mr. Marsh's paper dealt with the population of the district of supply, and the various quantities used for domestic, trade, and other purposes, giving information as to methods of supply and the prevention of waste. He also dealt with the monthly, daily, and hourly variations in the supply, tables and diagrams showing the averages of the last recorded year as compared with the average over a series of years; and some particulars were given of a metered supply

to a small block of cottage property. A tabulated statement was furnished showing the actual delivery through large trunk mains and the smaller service-pipes, with their lengths, and also the loss of head. With these were given the results of some experiments connected with the discharge from hydrants, fire-hose, and jets of different diameters, with different heads, and also the discharge and loss of head in lengths of lead pipe of different diameters, both with open ends and with stop-taps attached. The length of this lead pipe may be taken to approximate roughly to the ordinary length of a communication-pipe. Lastly, two experiments were given showing the great force of the concussion when a tap on a communication-pipe is suddenly closed. The second part of the paper dealt with the quantity of water flowing off the Redmires watershed, showing what portion of water is utilised, wasted, evaporated or absorbed, etc., and a table was furnished covering the period 1879 to 1907.

Mr. Baldwin-Wiseman began his paper by pointing out the urgent necessity for a detailed survey and a strict conservation of the water-resources of this country, if good and adequate supplies are to be afforded to the steadily increasing population and to the numbers likely to be inhabiting the land in the middle or end of the present century. He next discussed the natural purification of streams, and subsequently outlined the history of the researches upon slow filtration sand, touching incidentally upon sedimentation and the development of methods of chemical and bacterial investigation of waters intended for public supply. He then described at length his own experiments on the rate of flow of water through various thicknesses of British filter-sands, and the loss of pressure in them, and elaborated a formula connecting the rate of flow of water through any bed of sand under a constant difference of pressure with the superficial extent of the sand-grains and the volume of water retained by the sand. He concluded with a general review of modern improvements in the operation and construction of slow sand filters.

THE SOCIETY OF ENGINEERS.

The first ordinary meeting of the new Society, formed by the amalgamation of the Society of Engineers and the Civil and Mechanical Engineers' Society, was held on Monday, February 7, at Caxton Hall, Westminster. At the commencement the meeting was presided over by Mr. E. J. Silcock, last President of the Society of Engineers, and Mr. W. Noble Twelvetrees, last President of the Civil and Mechanical Engineers' Society. The premiums awarded by the Council of the Society of Engineers for papers read during 1909 were presented by Mr. E. J. Silcock as follows:—The President's gold medal to Dr. David Sommerville, for his paper entitled "Some Observations on the Chemistry and Bacteriology of Sewage Purification"; the Nursey premium of books to Mr. E. R. Matthews for his paper on "The Corrosion of Steel Reinforcement in Concrete"; and a Society's premium of books to Mr. W. E. Haldwell for his paper on "The Sinlumkaba Ferro-concrete Bridge." Mr. Twelvetrees presented the following premiums awarded by the Civil and Mechanical Engineers' Society for papers read during the last session:—A premium of books and instruments to Mr. R. O. Wynne-Roberts for his paper on "The Past, Present, and Future of the Organisation of the Engineering Profession," and a premium of books and instruments to Mr. H. Laurence Butler for his paper on "Specifications for Engineering Works."

Mr. Diogo A. Symons, the first President of the new Society, having taken the chair, votes of thanks to the Presidents of the constituent Societies were proposed by the senior Past-Presidents, and seconded by the senior Vice-Presidents of the Society of Engineers and of the Civil and Mechanical Engineers' Society. These resolutions were carried by acclamation, and the President then delivered his inaugural address, in which, referring to the examination which was to be the qualification for Fellowship of the new Society, he believed that its introduction would have the same beneficial effect as had been the case in the Institution of Civil Engineers. Proceeding to more general subjects, he called attention to the value of workshop training to engineering students, whether they intended to take up the civil or the mechanical branch of the profession. Ferro-concrete, so largely used at the present, had in many instances proved economical and entirely satisfactory for constructional works; but he considered that a large factor of safety should be allowed and every care taken to insure the use of the very best materials and workmanship. The question of the disposal of sewage was one which called forth innumerable inventions and improvements, but there was still a tremendous field for the energies of the engineer and the chemist. Referring to engineering work abroad, in which British capital was invested, the fact should not be overlooked that works financed in England were invariably designed by British engineers and carried out by British contractors, so that a great deal of outgoing capital returned to its source. Speaking of the education of young engineers, he emphasised the importance of a thorough grounding in fundamental principles before any attempt at specialisation was attempted, and laid stress on the advantage of gaining engineering experience with a contractor on public works. The tendency of engineering students to accept salaried appointments after too brief a training was deprecated, because such appointments usually involved loss of valuable instruction and experience.

THE INSTITUTION OF MUNICIPAL ENGINEERS.

At a meeting of the Council of the Institution, held at 39, Victoria-street, on the 26th ult., seven applicants were elected to membership. The roll of the Institution now stands at 686 members and ninety-six students, making a total of 782.

District Committees' Regulations. — The report of the committee appointed to draw up regulations for District Committees was presented, and the draft regulations accompanying the report were unanimously approved and ordered to be circulated.

Superannuation. — The Superannuation Committee reported that a letter, in the terms of the resolution passed at a meeting of the Northern District Committee held on December 18 last, had been sent to the National Association of Local Government Officers, and that, as a consequence, that body had sent a letter (the text of which appeared in the December issue of the Institution *Journal*) to each candidate for Parliament at the general election.

General Meeting.—The Secretary was instructed to arrange for a general meeting of the Institution in the Western District during the month of March.

Legal Column.

BUILDING LINE.

IN the case of Lilley *v.* London County Council (current "Law Reports") the House of Lords have given a decision on the London Building Act, 1894. In 1898 the superintending architect had certified the general line of buildings on the north side of Pentonville-road between Southampton-street and Winchester-street, and his certificate had not been appealed against. In June, 1906, a question arose in connexion with certain buildings of the appellants within that portion of the street where the building line had been defined by the Superintending Architect, and he again defined the building line in that portion of the street on the same line as before. There having been an appeal, the Tribunal of Appeal altered the building line, bringing it more forward, but there was no evidence of any building having been erected in any way altering the general line of buildings since the original certificate had been given, and both the Divisional Court and the Court of Appeal reversed the decision of the Tribunal of Appeal and restored the certificate of the Superintending Architect. The House of Lords affirmed these judgments, holding that when there has been no change in the circumstances affecting the general building line neither the tribunal of Appeal nor any other authority has power to alter it. The object of the London Building Act is to secure a general line of buildings, and the House of Lords pointed out that to accede to the applicant's contention would render the Act nugatory and lead to each individual having a building line fixed for his own particular property.

TWO BUILDER'S CASES.

Two cases affecting builders have recently come before the Court of Appeal, but as they were of a highly technical character they can only very shortly be noted here. In the first case, in *re* Taylor, a builder was engaged in erecting a block of nine houses, and the appellant was a joiner who had accepted a contract upon tender for all the joinery work. In November, 1907, the architect gave the appellant a certificate for 120*l.*, and the builder duly paid this amount. In February, 1908, a further certificate for 100*l.* was given, but the builder was unable to find the money, and asked for time. Being, however, unable to pay the money, he suggested that the appellant should purchase four of the houses, setting off the 100*l.* due to him and a further sum of about 150*l.*, which would become due under a final certificate. In consequence the appellant signed two contracts about June, 1908, one for the purchase of three houses at 650*l.*, on which the deposit of 100*l.* was represented by the 100*l.* due on the certificate and another for one house at 280*l.*, the contracts to be completed on July 1 and 3, the amount due on the certificates to be set off against the balance of the purchase money, which, as the houses were mortgaged, amounted to 280*l.* The final certificate for 157*l.* 10*s.* was given on July 10, and the appellant's solicitors accepted the title on July 10. On July 11 the appellant learnt that the builder had committed an act of bankruptcy on June 30, and on the builder being adjudicated bankrupt the trustee in bankruptcy became entitled to the houses as from that date. The appellant paid off the mortgages and applied to have specific performance of the two contracts and a declaration that from the purchase money he was entitled to set off the amounts due to him under the certificates. The County Court judge held that specific performance could only be granted on payment of the whole purchase money without set off. The Divisional Court allowed the set off, and the majority of the Court of Appeal have affirmed this judgment. The question turns on Sect. 38 of the Bankruptcy Act, 1883, which deals with the question of mutual credit and set off.

The second case, Formby Brothers *v.* E. Formby, raised a question of agency. Certain work had been done and materials supplied under a building agreement made between "James Rimmer, the proprietor, and Formby Brothers, the contractors." The plaintiffs contended that Rimmer was only the agent of Formby, of whom the defendant was administratrix, and the County Court judge accepted that view, and gave judgment for the plaintiffs. The Divisional Court reversed this finding, but the Court of Appeal restored it on the technical ground that as no objection had been taken at the trial in the County Court to the admission of evidence to prove agency it was not open to the defendant to

raise the point on appeal either to the Divisional Court or the Court of Appeal. This evidence was improperly admitted, as on the face of the contract Rimmer was clearly stated to be the principal, and the Court of Appeal animadverted on the rules of practice which prevented them from giving relief.

Competition News.

SECONDARY SCHOOL AT PETERBOROUGH.

The Secretary of the Royal Institute of British Architects asks us to announce that the Competitions Committee are in communication with the promoters of this competition with a view to the amendment of the conditions.

NATIONAL MUSEUM OF WALES.

We are officially informed that 129 designs have been received in connexion with the competition for the National Museum of Wales. It is not thought that the award of the assessors will be published before the middle of March.

LIBRARY, ST. ALBANS.

Mr. A. W. S. Cross, F.R.I.B.A., has been appointed to act as assessor in connexion with the competitive designs for the proposed new public library.

NEW BUILDINGS FOR THE INSTITUTION OF CIVIL ENGINEERS.

We understand that the design of Mr. James Miller, A.R.S.A., architect, Glasgow, has been selected for the new buildings of the Institution of Civil Engineers, London. Some months ago the Institution invited six leading firms of architects to compete for the building, four of these being from London, one from Liverpool, and one from Glasgow, each competitor receiving a premium of 200 guineas. The scheme will involve an expenditure of over 100,000*l.*

LINTHORPE COUNCIL SCHOOLS.

At the monthly meeting of the Middlesbrough Education Committee, held this week, the report of Messrs. Oliver, Leeson, & Wood, of Newcastle, who were appointed as assessors of the competitive plans for the proposed new schools and extensions to the Linthorpe Council schools, was submitted. Their awards placed Mr. James Forbes, of 43, Albert-road, Middlesbrough, first in order of merit; Messrs. R. Lofthouse & Sons, second; Messrs. J. Bottomley & Wellburn third; and Mr. A. Forrester fourth, all of Middlesbrough. On the motion of Councillor W. G. Roberts, seconded by Councillor Robinson, it was agreed that Mr. Forbes's plans be approved.

SCHOOLS, BROMLEY, KENT.

The following architects have been invited to submit designs in a limited competition for proposed public elementary (church) school, to be erected at Mason's-hill, Bromley:—Mr. H. W. Burrows, Mr. Evelyn Hellican, Mr. H. A. Latter, Messrs. Russell & Cooper, and Mr. C. H. B. Quennell. The assessor appointed is Mr. H. P. Burke Downing, F.R.I.B.A., of Westminster.

COUNCIL SCHOOL, SUTTON, MACCLESFIELD.

At the last monthly meeting of the Macclesfield Town Council, Councillor W. R. Brown directed attention to the following resolution of the School Accommodation and Buildings Committee respecting the competitive designs submitted for the proposed new elementary school to be erected in Byron-street, Sutton:—"That the alternative design submitted by one of the competing architects be not allowed, and that he be written to and asked which design he prefers the Committee to consider." Councillor Brown said it occurred to him that the more schemes they had the better; if they could get twelve schemes instead of six, surely it must be to their advantage. He would like to know what was the reason why the School Accommodation Committee passed this resolution.—Councillor W. Frost replied that the Committee thought it was unfair to give two chances to one man who, like the others, was only told to prepare one scheme. The alternative scheme had since been withdrawn, and there were only four before the Committee now instead of five. Councillor W. R. Brown asked whether it had not been withdrawn because of the resolution that had been passed.—Councillor Hewetson said there was the further fact to be mentioned that one of the architects approached the Clerk to the Education Committee and asked whether he might send in two schemes, and was told that the Committee required one only. The Clerk having taken that line, they were certainly bound to adhere to it.—Councillor W. R. Brown said that put a different light on the matter. He did not press it any further.

Correspondence.

FALL OF A WALL.

SIR,—An old garden wall, roughly built of a rather friable sandstone, fell suddenly across the adjoining road towards the north-west after a severe frost on the morning of Thursday last, January 27. Its length was 68 ft., height above the surface of the road 12 ft. 6 in. (the whole of which fell), thickness 15 in., depth of foundation about 15 in., resting, without any projecting footings, upon a very hard subsoil. The surface of the garden is about 4 ft. 6 in. above the road, and the wall had no buttresses or counterforts.

The local authority recently laid a water main near the foundation of the wall, and at a slightly lower level.

Would this sudden collapse be sufficiently accounted for by heavy driving rain, followed by a sharp frost, having saturated the soft sandstone? There was no wind at the time.

A somewhat similar case came to my notice some years ago, but that wall was newer, of a more substantial character, and the stone of a less porous nature. It also fell bodily, without any previous warning, on a frosty morning.

Would this be entirely due to the action of frost upon coarse mortar joints moistened by rain?

J. HOUGHTON SPENCER.

BOOKS RECEIVED.

SIMPLE JEWELLERY: A Practical Handbook dealing with certain elementary methods of design and construction. By R. Ll. B. Rathbone. Pp. 273. (Constable & Co. 6*s.*)

THE YEAR'S ART: 1910. Compiled by A. C. R. Carter. Pp. 542. (Hutchinson & Co. 5*s.*)

HOUSING AND TOWN PLANNING IN GREAT BRITAIN: A Statement of the Statutory Provisions, etc. By W. Addington Willis, Barrister-at-Law. Pp. 201. (Butterworth & Co.)

Master Builders' Associations, etc.

BELFAST BUILDERS' ASSOCIATION.

The annual general meeting of this Association was held at their offices, No. 12, Mayfair, Arthur-square, Belfast, the Vice-Chairman (Mr. R. B. Henry, J.P.) occupying the chair. The minutes of the previous meeting having been read and confirmed, the Secretary (Mr. J. A. M'Auley) submitted the annual report, which was unanimously adopted. Amongst the items of business mentioned therein it was stated that nothing had occurred during the year to disturb the amicable relationship that has existed between this Association and the local trade societies. The Committee, with sincere regret, had to record the death of three valued members—Messrs. W. J. Campbell, Robert Corry, J.P., and John Laverty. The election of office-bearers resulted as follows:—President, Mr. John Martin, J.P.; Vice-President and Hon. Treasurer, Mr. R. B. Henry, J.P.; Committee, Messrs. J. O. Campbell, John Courtney, Hutcheson Keith, James Lees, W. H. M'Laughlin, J.P., John Smith, J. Miskimmin, and W. J. Stewart. Some general business having been transacted, the meeting concluded.

BARROW MASTER BUILDERS' ASSOCIATION.

The Barrow Master Builders' Association held their seventh annual gathering at the Victoria Hotel, Barrow, on the 4th inst., under the presidency of Mr. G. Varley. The chairman was supported by Alderman Barrow, Mr. John Cox, J.P., Mr. A. A. Race (Borough Engineer and Surveyor), Mr. E. M. Young, Mr. M. Stables, Mr. H. Britton, Mr. J. Baker, and others.

Mr. Race, in replying to a toast proposed by Mr. Britton, "The Borough Surveyor and Architects," said he was pleased to meet the builders under favourable conditions, believing and hoping that the trade of Barrow was improving, and that the builders would have fairly good times. But builders would have to build with caution; he did not think there was room for much speculation in building houses. They in Barrow owed a great deal to their predecessors—the Council, the builders, and the Borough Surveyors—for the fine wide streets they possessed, and for the manner in which buildings had been erected. He thought buildings in Barrow were erected in a much more substantial manner than in many other towns he had known. He thought that in Barrow, whilst they had substantial buildings, there was room for improvement from the architectural standpoint. They could at present go into many houses costing 300*l.* or 400*l.* and into others costing up to 1,000*l.*, and they would find the same furnishings and fittings in both sets of houses. Artistic work did not cost a penny more than inartistic work. There was too much desire to erect houses after the style of those already erected.

Alderman Barrow, in submitting the toast of "The Barrow Master Builders' Association," said in Barrow they had practical business men from both the ranks of masters and workmen meeting together and settling any points that might arise, and in consequence they had not had a strike or a dispute for two or three years past. There had been considerable depression in the building trades, but he hoped there were signs of an improvement, and that there would be a demand for more houses.

LONDON COUNTY COUNCIL EDUCATION COMMITTEE.

THE London County Council Education Committee met on Wednesday.

Purchase of Sites.—Terms as follows were accepted:—Nos. 8 and 9, Coborn-street, Bow, enfranchisement of copyhold, Lord Colebrook, 17*l.*; 26, Popham-road, site of Crown beerhouse, Islington, freehold, Marshall's Trustees, 700*l.*; 13, Delhi-street, Islington, leasehold, Mr. R. Markell, 430*l.*

Magdalen-road Site, Wandsworth. — The settlement, at 7,000*l.*, was recommended in respect of the claim of the Trustees of Magdalen College.

Camden-street, St. Pancras.—A supplemental vote of 1,317*l.* was recommended for the acquisition of site for new school.

Camberwell School of Art.—It was recommended that land adjoining the school should be rented for 999 years from Camberwell Council at a yearly rental of 75*l.* till 1927, and thereafter at 1*s.* a year, so that the school may be extended.

New School at Canning Town.—Notice was given by the local authority to build a school for 1,500 elementary children.

The "Fox" School, Kensington.—It was reported that consideration was being given to a scheme for improving this school, built in 1880.

Ossulton-street School, St. Pancras.—It was decided to close the infants' department pending repairs, the lantern light being unsafe.

Baltic-street, Finsbury.—131*l.* voted for levelling the site of new school.

Myrdle-street, Stepney.—121*l.* voted for additional accommodation.

Dingle-lane, Poplar.—135*l.*, supplemental estimate, voted for drainage work on the site.

"Maryon-park" School, Woolwich.—It was decided that the contractors, Messrs. Kirk & Randall, now enlarging the school, should remove boundary wall, at estimated cost of 322*l.*

Hammersmith Trade School for Girls.—It was reported that the tender of Messrs. G. Munday & Sons, 1,048*l.*, had been accepted for the erection of a brick building.

St. Andrew's-street, Clapham.—750*l.* was voted for heating works.

Broad-street, Limehouse.—300*l.* was voted for enlargement of playground, the work to be done by local contractor at schedule prices.

Avery-hill.—It was reported that the tender of Messrs. W. G. Cannon & Sons, 75*l.*, had been accepted for heating works.

Boundary-lane, Camberwell.—108*l.* sanctioned for provision of cloakroom.

Baker-street, Stepney.—75*l.* voted for repairing damage caused by recent fire.

LONDON AND DISTRICT BOROUGH COUNCILS.

Battersea.—Tenders are to be invited for making-up and paving Sumburgh-road. Electric mains are to be extended, at a cost of 250*l.*

Chelsea.—Plans have been passed as follows:—Mr. W. R. Low, building rear of 33, Sloane-street, abutting upon Hans-crescent; Messrs. Elms & Jubb, building on site south of 400, King's-road.

Deptford.—Plans have been passed for Mr. E. J. Fisher for a new clubroom at the Southwark Park Brewery Tap, Trundley's-road; also for Mr. J. M. Kennard for shops in front of 393 and 395, Queen's-road.

East Ham.—The Town Council has passed a plan for Mr. T. Hillier Pyke for a rink and cinematograph theatre in Barking-road.

Hackney.—The tender of Mr. A. T. Catley, at 1,736*l.* 8*s.* 4*d.*, has been accepted for new street works at Egerton-road. A sewer in the road named is to be reconstructed at a cost of 360*l.* Plans have been passed for Mr. A. Whitelaw, on behalf of the London and North-Western Railway Company, for the erection of one-story shops on the southern side of Dalston-lane, in front of Dalston Junction Railway-station. Mr. A. Monk has lodged plans for the rebuilding of the Sir Walter Scott public-house, Andrews-road, and The Broadway, London Fields.

Hendon.—Plans have been passed by the Rural District Council, for Messrs. Maple & Co., for alterations at Stanmore Hall. Meads-road, Edgware, is to be made up, at an estimated cost of 559*l.*

Islington.—104*l.* is to be spent in sewer work in Canonbury-lane, and sewer and gully work is to be carried out in Douglas-road, at an estimated cost of 100*l.*

Marylebone.—The existing hardwood carriageway in Maida Vale is to be relaid with 5-in. creosoted deal blocks, at an estimated cost of 8,196*l.* It is proposed to construct an underground convenience in Barrett-street, in accordance with a sketch plan prepared by the Borough Surveyor, at an approximately estimated cost of 1,700*l.*

Poplar.—The tenders of the London Asphalte Company for laying 2-in. compressed rock asphalt in Lefevre-road, at 8s. per yard, and that of the Limmer Asphalte Paving Company for laying 2-in. compressed rock asphalt in Teviot-street, St. Leonards-road, and Montague-place, at 8s. 3d. per yard, have been accepted, the prices to include five years' free maintenance in each case. Further representations are to be made to the London County Council urging the widening of Tredegar-road bridge.

Southgate.—Plans have been approved by the District Council for a church hall and classrooms to be erected at the rear of St. Michael's Church, Bowes Park; also for Messrs. Edmondsons, Ltd., six shops and houses, Broadway, and two houses, Hoppers-road, Winchmore Hill; Messrs. James & Morgan, to lay out a new street and to extend River-avenue on land adjoining Green-lanes, Palmer's Green; Mr. S. H. Hall, five shops and houses, the Promenade, Palmer's Green.

Stepney.—The tender of Messrs. C. A. Parsons & Co. has been accepted, at 19,091*l.*, for a turbo-generator, and the tender of Messrs. E. Dank & Co. (Oldbury), Ltd., at 13,761*l.*, for boilers and accessories for the generating-station. Plans have been passed for Mr. H. Smith for the conversion of the building known as the People's Arcade, Back Church-lane, Whitechapel, into a skating-rink.

Wandsworth.—Messrs. C. Wall, Ltd., are to pave portion of Welham-road, Streatham, at 195*l.* Tenders are to be invited for paving part of Greyhound-lane, Streatham. An agreement has been entered into with regard to the proposed erection of additions to the Electric Supply Company's transformer-station at the corner of Tooting Bec-gardens and Streatham High-road. The Highways Committee have decided in favour of sanitary conveniences being constructed near the junction of High-street, York-road, and Garratt-lane, at an estimated cost of 2,000*l.* The following plans have been passed:—Mr. H. Watts, four houses, Mandrake-road, Balham; Messrs. Wooding & Cole, additions at Cintra, Streatham Common North; Mr. Stewart, re-erection of Waggon and Horses beerhouse, 206, 208, and 210, Lyham-road, Clapham South; Messrs. Webber & Corben, Ltd., offices, stables, etc., Perseverance-grove, Nelson's-row, Clapham South; Mr. F. Rashbrook, three houses, Ironmill-place, Fairfield; Mr. W. Hammond, electroscope hall, 18, Tooting High-street.

West Ham.—The Council has passed the following plans:—Mr. F. Danby Smith, vicarage, Sidney-road, Forest Gate; Messrs. Cadas, Ltd., new milling-room and label store, Ward-road, Stratford; Mr. P. Cornish, picture palace, Freemasons'-road, corner of Varley-road, Custom House. A plan has been lodged by the Venesta Company for a factory, warehouse, offices, etc., at their premises in North Woolwich-road, Silvertown.

COURT OF COMMON COUNCIL.

THE Lord Mayor presided over a meeting of the Court of Common Council held at the Guildhall on Thursday last week.

Paving Works.—The Streets Committee submitted the following list of paving works proposed to be carried out during the coming year:—

(1) Carriageways to be paved with asphalt—

St. James's-place, Aldgate, 375*l.*; New London-street, 140*l.*

(2) Footways to be paved with asphalt—

New London-street, 55*l.*; John-street, Minories (south side), 140*l.*; New-street, Gravel-lane (part), 50*l.*; Nettleton-court, Nichol-square, 15*l.*; Pilgrim-street, 70*l.*; Seacoal-lane, 150*l.*; Fleet-lane, 150*l.*; Aldgate High-street (Mansell-street to London and North-Western Railway Goods Depôt), 85*l.*; Stoney-lane (south-east side, part of), 30*l.*; Hanover-court, Houndsditch, 35*l.*; Castle-court, Cornhill, 25*l.*; London-wall (Blomfield-street to New Broad-street, both sides), 220*l.*

(3) Granite carriageways to be taken up and relaid, the deficiency being made good with new stone—

Seacoal-lane (Fleet-lane to Railway Arch), 260*l.*; Fleet-lane (Old Bailey to Railway Arch), 400*l.*; Water-lane (Queen Victoria-street to Playhouse-yard), 260*l.*; Pindar-street (part), 400*l.*; Benets-hill (lower portion), 65*l.*

(4) Footway to be relaid with York stone—

John-street, Minories (north side), 110*l.*

(5) Carriageway to be paved with creosoted deal blocks—

Cloak-lane (from existing wood, for length of about 125 ft. eastward, subject to the frontagers contributing one-half net cost), 110*l.*

The Streets Committee also recommended the extension of contracts for maintenance of pavements, as follows (the prices given represent the cost per yard super. per annum):—

(1) The Val de Travers Asphalte Company, Ltd.—

Fell-street—carriageway; for five years at present price, viz., 9d. St. Mary-axe—carriageway; for five years at present price, viz., 8d. St. Paul's-churchyard (east side)—carriageway; for five years, at 1s. 9d., being an increase of 3d. per yard.

(2) The Limmer Asphalte Company, Ltd.—

Lombard-court, Clement's-lane—carriageway; for five years at present price, viz., 6d. Hammett-street—carriageway; for five years at 6d., being an increase of 1d. per yard. Silver-street—carriageway; for five years at 6d., being an increase of 1d. per yard. Walbrook—carriageway; for five years at 6d., being an increase of 1d. per yard. Bishopsgate-street Without—footways; for one year at present price, viz., 4d. Queen's Head-passage, Newgate-street—footway; for five years at present price, viz., 4d. Sugar Loaf-court, Garlick-hill—footways; for five years at present price, viz., 6d.

(3) The French Asphalte Company, Ltd.—

Helmet-court—carriageway; for five years at present price, viz., 3d. Lime-street-square—carriageway; for five years at present price, viz., 6d. Philpot-lane—carriageway; for five years at present price, viz., 9d. Seething-lane (southern end)—carriageway; for five years, at 8d., being an increase of 2d. per yard. Wormwood-street—carriageway; for three years, at 1s., being an increase of 4d. per yard. Lime-street—carriageway; for five years, at 8d., being an increase of 2d. per yard, subject to subsidence at north end being made good by Corporation. (Estimated cost, 85*l.*) Dean-street, Fetter-lane—footways; for five years at present price, viz., 4d. Moorfields, White-street and Ropemaker-street—footways; for five years at present price, viz., 4d. New-court, Farringdon-street—footways; for five years at present price, viz., 4d.

(4) The Improved Wood Pavement Company—

St. Paul's-churchyard (south side)—carriageway; for fifteen years, at 1s. 1d., being a reduction of 2d. per yard.

Dangerous Manholes.—Referring to an application by the Postmaster-General for permission to lay pipes and ducts, and to construct eight manholes in the carriageways and eighteen boxes in the footways in certain thoroughfares, Mr. Davies Singer expressed the hope that precautions would be taken to have the manholes properly ventilated, as the several street explosions that had occurred were said to have been caused by an accumulation of gas.—Mr. Gunton, the Chairman of the Streets Committee, said that the fullest precautions would be taken in the matter.

Royal Sanitary Institute Congress.—It was agreed, on the recommendation of the Sanitary Committee, that the Chairman (Mr. Walter Bull), the late Chairman (Mr. H. Percy Monckton), and the Medical Officer of Health (Dr. Wm. Collingridge), be appointed delegates to represent the Corporation at the annual Congress, to be held at Brighton, of the Royal Sanitary Institute.

Embankment Shelter.—Mr. Key drew attention to the fact that there had been placed on the Victoria-embankment by the London County Council a large temporary shelter for use in connexion with the tramways. It had been placed opposite the City of London School, and obstructed the view from that institution. He wished to know what action the Court proposed to take in the matter.—Mr. Redding, Chairman of the City Schools Committee, stated that the matter was under the consideration both of his own Committee and the City Lands and Bridge House Estates Committees.

Street Improvements.—The Court approved of the acquisition of the freehold interest of Mr. J. H. T. Keeves, of 105A, Bishopsgate-street Without, for 2,340*l.*; the freehold interest of Messrs. H. Lacy & others in 107, Bishopsgate, for 1,900*l.*; the leasehold interest of Messrs. J. C. & E. Lilley, in 115, Bishopsgate-street Without, for 2,100*l.*; the freehold interest of E. & A. M. Hughes in 130, Bishopsgate Without, for 5,000*l.*; and the freehold interest of Mr. H. C. Blatherwick in Nos. 131, 132, 133, and 134, Bishopsgate-street Without, for 14,000*l.* The Court also adopted an arrangement for acquiring the ground required to widen the public way in front of No. 47, Fleet-street, for 6,545*l.*, to include all interests.

Drainage Repairs.—The West Ham Park Committee were authorised to repair the drainage and sanitary arrangements at the park at a cost not exceeding 350*l.*

Catalogue of the Corporation's Works of Art.—The City Lands Committee were authorised, after some discussion, to expend a sum not exceeding 200*l.* on the publication of a catalogue (with description and biographical notes) of the works of art belonging to the Corporation.

PROJECTED NEW BUILDINGS IN THE PROVINCES.

ABERBARGOED.—Fire-station; Clerk to the Urban District Council, Bedwellty.

Allendale.—Premises for Leadgate Co-operative Society, Ltd.

Banshill.—Extension to hospital (1,100*l.*); Messrs. J. & J. Armour, architects, 43, Bridge-gate, Irvine, N.B.

Barnet.—New wards at hospital; the Guardians, Barnet.

Bearstend.—Additions to infant school; the Managers.

Birmingham.—Premises for Messrs. Best & Lloyd, Ltd.; Mr. G. Webb, builder, Soho, Birmingham. Rebuilding premises, Moseley-street; Mr. H. Woodman, builder, Broomsgrove-street, Birmingham.

Birtley.—Rink (2,000*l.*); local syndicate.

Blackpool.—Warehouses for Pilling Brothers, Back Peter-street.

Caubois.—Workmen's institute; Secretary, Workmen's Club.

Chesham Bois.—St. Leonards Church: Messrs. Kemp & How, architects, 6, Bloomsbury-square, W.C.

Cross Keys (Mon.).—Club premises; Mr. R. L. Roberts, architect, Abercarn.

Croydon.—Training centre, Boston-road (800*l.*); architect, Education Committee.

Cupar (Fife).—Drill-hall (2,150*l.*); Messrs. Gillespie & Scott, architects, Queen-gardens, St. Andrews.

Derby.—Additions to workhouse; Mr. H. H. Springett, builder, Derby.

Dumfermline.—Swimming-baths; Clerk to Town Council.

Eastbourne.—Proposed shops, Upperton-road; Mr. Morgan, engineer, L.B. and S.C. Railway Company. The Town Council has passed the following plans:—Addition, Southdown House, Silverdale-road, Mr. F. G. Cooke, architect; addition, "Lynchmere," Carew-road, Mr. F. G. Cooke, architect, J. Martin, builder; additions, 3 and 4, Central-buildings, Seaside-road, Messrs. Mitchell & Ford, architects.

Elgin.—Rink (2,200*l.*); Mr. R. B. Pratt, architect, Elgin.

Fisherton.—School for Maybole School Board (2,000*l.*); Mr. J. K. Hunter, architect, Sandgate, Ayr.

Forfar.—Extension to infirmary (2,000*l.*): Messrs. Gavin & Soutar, architects, East High-street, Forfar.

Friern Barnet.—Extensions to St. Michael's Church, Bowes Park; the Vicar.

Gilsland.—Convalescent home; Messrs. W. & T. R. Milburn, architects, Fawcett-street, Sunderland.

Glasgow.—Offices and warehouses, Ingram-street (35,000*l.*); Messrs. J. W. & J. Laird, architects, Hope-street, Glasgow. Extension to Samaritan Hospital (12,000*l.*); Messrs. McWhannell, Rogerson, & Reid, architects, West Regent-street, Glasgow.

Hermitage.—School; Mr. Reilly, architect, Aylesbury.

Hexby.—Enlarging St. Mary's Church; Mr. C. Hodgson Fowler, architect, The College, Durham.

Hirst (Northumbs).—School; Mr. W. Forrest, architect, Moot Hall, Newcastle.

Hove.—The Town Council has passed the following plans:—Three houses, Portland-villas, Mr. W. H. Hamper; motor spirit store, Goods Yard, L.B. and S.C. Railway, for the British Petroleum Company, Ltd.; West Hove Club, New Church-road, Mr. R. S. Arden.

Huddersfield.—Presbyterian church; trustees, Huddersfield.

Inverness. — Two villas, Lockalst-road (2,000*l.*); Mr. A. F. McKenzie, architect, 15, Union-street, Inverness.

Kilkeel.—Forty-three cottages (5,500*l.*); Surveyor, Rural District Council.

Knebworth (Herts).—School; County Surveyor, Mr. U. A. Smith, Hatfield.

Leek.—Depôt buildings; Surveyor, Town Hall, Leek. Drill-hall (3,000*l.*); Mr. T. Godwin, builder, Hanley.

Load (Fulwood).—Wesleyan church and school, Watling-street.

Lowfield Head.—School; Messrs. Jones & Richards, architects, 10, Queen Anne's-gate, S.W.

Ludlow.—School; Mr. H. T. Vaughan, builder, Hereford.

Marsden. — Tower, St. Bartholomew's Church; the Vicar.

Minster (Kent).—School; Messrs. E. Bishop & Son, builders, Sittingbourne.

New Brighton. — Additions, Emmanuel Church; Messrs. Deacon & Horsburgh, architects, 12, St. George-crescent, Liverpool.

Newport (Barnstaple).—Chapel (1,090*l.*); Mr. A. Lauder, architect, Bridge-buildings, Barnstaple.

North Keswick.—Craig Cottage (2,000*l.*); Mr. T. Munro, architect, 62, Academy-street, Inverness.

Nottingham.—Pavilion, Bulwell Hall Park (2,000*l.*); Mr. A. Brown, Borough Surveyor.

The Town Council has passed the following plans:—Five houses, Ashburnham-road, for Mr. A. P. Hawtin; six houses, Southampton-road, for Messrs. A. R. & W. Cleaver; six houses, Southampton-road, for Mr. J. C. Wareing; alterations to factory, Victoria-road, and eight houses, Abington-avenue, for Mr. H. Martin; six houses, Glasgow-street, for Mr. J. T. Powell. Plans have been lodged by the Co-operative Society, Ltd., for alterations to premises, St. Leonard's-road.

Penycraig.—School; Mr. Jacob Rees, architect, Hillside Cottage, Pentre.

Portsmouth.—Secondary school (6,000*l.*); Messrs. H. Jones & Son, builders, Portsmouth.

Radford (Coventry).—School (4,000*l.*); Mr. A. J. Lord, builder, Wolston, Coventry.

Rotherham.—Proposed consumptive hospital for the Rotherham Guardians. The Town Council has passed the following plans:—Twelve houses, Gerard-road, for Messrs. Ball & Waite; six houses and one shop, corner of Hatherley-road and Denman-street, for Mr. H. James; six houses, Wilton-gardens and Ellen-street, for Messrs. Taylor Brothers; alterations and improvements, College-road Inn, for Mapping's Masborough Old Brewery, Ltd. A plan has been lodged by the Rotherham Builders' Supply Company, Ltd., for three houses, Rawmarsh-road.

St. Albans.—The Rural District Council have passed plans for a pair of semi-detached villas in Blenheim-road, for Messrs. Vail & Shore, builders; two cottages in Warwick-road, for Messrs. Bygrave & Stratton; new house on Great Nast Hyde estate, for Mr. W. J. Richardson; new drainage system, Beaumont Works, St. Albans, for Messrs. Nicholson's Raincoat Company, Ltd.; drainage works for Sanitorium, Harpenden; four cottages, Castle-road, St. Albans, for Mr. H. Parish.

Sale.—Post-office (2,200*l.*); Messrs. Thorpe, builders, Trafford.

Sedgeford.—School; County Architect, Shire Hall, Norwich.

Sheffield.—Filtration-shed, Redmires (325*l.*); Mr. F. T. Walker, builder. The Town Council has passed the following plans:—Addition to foundry, Barrow-road, for Messrs. J. Crowley & Co., Ltd.; additions, premises, Eyre-street, for Messrs. H. Barnascone & Sons; addition, Punch Bowl Inn, South-street, Moor, for Messrs. Truswell's Brewery Company, Ltd.; twelve houses, Hawkshead, Skelwith, and Birdwell roads, for Mr. B. Hollingsworth; additions, premises, Acres Hill-road, for the Sheffield Wire Rope Company, Ltd.; eight houses, Murray-road, for Mr. T. A. Wright; additions and alterations, Masons' Arms public-house, Capel-street, for Messrs. J. L. Cockayne & Sons; thirteen houses, Montrose-road, for Mr. J. Plant; additions to church and school, Zion-lane, for Trustees, Zion Church; four houses, Dobbin-hill, for Messrs. Wilabraham Brothers; theatre, Union-street and Union-lane, for Mr. A. G. Hides; alterations to premises, Waingate, for the Sheffield Corporation Markets Committee; four houses, Withens-avenue, for Mr. W. J. Patchett; additions to premises, Burngreave and Abbeyfield roads, for the Rev. Mother Superior, Sisters of Mercy; four houses, Linden-avenue, for Mr. W. Lighton; twenty-four houses, Toftwood-road, for the Crookes Land Syndicate; ten houses, Strathtay-road, for Messrs. J. E. & A. S. Wilbraham; alterations to premises, Clun-street, for Messrs. Carter, Milner, & Bird, Ltd.; additions to premises, Chesterfield-road, for the Sheffield and Hallamshire Bank, Ltd.; United Methodist Chapel, Stubbin-lane and new road, for the Trustees; saleshops, offices, workshops, and stores, Norfolk-street and Howard-street, for Messrs. Walker & Hall.

Stretford.—Proposed extension to technical institute; Surveyor to Urban District Council, Stretford. The Urban District Council has passed the following plans:—Seventeen houses, Ayres-road, for Messrs. J. & R. Halley; bakery, etc., Elsinore-road, for Mr. E. J. Oldfield.

Tavistock.—Territorial headquarters; Messrs. Dymonds & Parsons, architects, Southernhay, Exeter.

Tetford (Lincs.).—Additions, St. Mary's Church; Mr. C. H. Fowler, architect, The College, Durham.

Torquay.—The Town Council has passed the following plans:—Ten houses, Orchard-road, for Mr. J. J. Chubb; addition to Ridgemont, Kenwyn-road, for Mr. W. J. Webb; garage, Cliff House, for Col. Stovell; alteration to garage, Grand Hotel, for Mr. J. B. Gilley; addition to The Bungalow, Barton, for Mrs. E. Gibbons.

Tything (Worcester). — Garage; Messrs. Phelps & Johnson, builders, Worcester.

Ward End.—Theatre; Messrs. R. Horsfall & Son, architects, Halifax.

Waterhead.—Institute; Mr. C. Taylor, architect, 10, Clegg-street, Oldham.

Wombridge (near Okengates, Salop).—School; Messrs. Dickens-Lewis & Haynes, architects, Talbot-chambers, Shrewsbury.

Woodhouse Rastrick.—Villa (1,000*l.*); Mr. A. G. Sladdin, architect, Bethel-street, Brighouse.

Worcester.—Villas, Shrubbery-avenue; Mr. C. Kimber, Bath-road, Worcester.

Wigan.—The Town Council has passed the following plans:—Fifteen houses, Woodhouse-lane, for Mr. J. Fairbrother; three houses, Essex-street, for Mr. A. Sharpless, builder; St. Catherine's Men's Institute in Catherine-terrace and Leader-street.

Yeovil.—Almshouses for Town Council (1,500*l.*); Mr. A. Oddy, architect, Yeovil.

THE SANITARY INSPECTORS' ASSOCIATION:

ANNUAL DINNER.

THE twenty-seventh annual dinner of the Sanitary Inspectors' Association was held on Saturday last week in the Georgian Hall, Gaiety Restaurant, Strand, W.C., Sir James Crichton-Browne, M.D., J.P., LL.D., F.R.S., President, in the chair. There were also present:—The Earl of Arran K.T., the Lord Mayor of London (Sir J. Knill, Bart., J.P.) and the Sheriffs, the Venerable Archdeacon Sinclair, D.D., Sir William Crookes, F.R.S., Sir David Gill, K.C.B., F.R.S., Sir Herbert Ellis, K.C.B., His Honour Judge Rentoul, K.C., Mr. L. Atherley-Jones, K.C., M.P., Mr. H. D. Searles-Wood (Chairman of the Royal Sanitary Institute), Mr. J. Kerr, M.A., M.D., Mr. Laurence Gomme (Clerk to the London County Council), Dr. A. Newsholme (Chief Medical Officer, Local Government Board), Mr. B. A. Whitelegge (Chairman Sanitary Inspectors' Examination Board), the Mayors of Battersea, Wimbledon, and Westminster, Mr. Lewis Thomas, K.C. (Hon. Counsel), Mr. Thos. G. Dee (Hon. Secretary), Mr. J. T. Quinton (Chairman of Council), Mr. Isaac Young (Hon. Treasurer), Mr. W. Stansfield and Mr. H. Johnson (Vice-Chairmen of Council), Mr. H. H. Spears (Editor of the *Journal* of the Association), and others.

The loyal toast having been proposed by the Chairman and honoured,

The Ven. Archdeacon Sinclair, D.D., proposed the toast of "The Houses of Parliament," and in the course of his remarks he expressed the hope that the new House of Commons would find more time to devote to sanitary legislation and less to the agitating subjects which engaged the attention of the past House.

The Earl of Arran, K.T., first replied.

Mr. L. Atherley-Jones, K.C., M.P., who also replied, said he hoped and believed that the new House of Commons would devote itself to the solution of those social problems which this complex society urgently required to be dealt with.

The Mayor of Wimbledon (Mr. J. N. Bathgate, J.P.) then proposed the toast of "The Sanitary Inspectors' Association." The community at large owed a great debt of gratitude to the sanitary officers. He was happy to say that the Association had increased its numbers from 171 to 1,350. There were two reasons for that, the first being the eminent Presidents the Association had had, and the second being the fact that the Council of the Association had held meeting all over the country, where knowledge was imparted from one to the other. During the last year nearly fifty towns in England and Wales had been the recipient of sanitary lectures of one kind or another.

The President, Sir James Crichton-Browne, in reply, said that with the medical officer of health had come the sanitary inspector, who was one of the most invaluable and well-conducted and well-equipped, skilled, and energetic public servants. He had seen a good deal of sanitary inspectors during recent years, and he unhesitatingly said that there was no body of men in this country doing more useful work, no body of men more determined to raise the status of their calling, to improve the qualifications of their status and efficiency, no body of men more cheerful and undaunted in the presence of disheartening obstacles. The duties of the sanitary inspector were of the most marvellous character. They were beneficial Paul Prys, and he wished all power to their elbow in the matter of smoke abatement; and as to that he hoped we should one day have a London as bright and clean as Monte Carlo. Sanitation throve best on tranquillity, but there were spurts now and then, and of recent spurts he might mention one or two. In 1907 they secured the Public Health Act, which had an important bearing on public sanitation; and they had secured the Housing and Town Planning Act, from which great hygienic benefits were expected. Housing might be the bane or blessing of sanitation, and it was a necessary adjunct to the work in which sanitary inspectors were engaged. Whatever their politics, he thought they owed gratitude to the Right Hon. John Burns for his work at the Local Government Board in sanitary matters.

The Lord Mayor having spoken in reply to some concluding remarks of the President,

Judge Rentoul proposed the toast of "Local Government," and the Mayor of Westminster (the Rev. F. Harcourt Hillensdon, M.A., J.P.) replied, and remarked that the health of Westminster was never better than at the present time. One of the objects of the Sanitary Inspectors' Association was superannuation of its members, and in this his Council was in complete accord.

Dr. A. Newsholme, M.D., also replied, and remarked that there was a spirit in the Housing Act which was worth noting. It was the spirit of prevention as contrasted with remedial measures. The principle might be put in the words, if a thing is worth remedying it is much more worth preventing, and in this work of prevention the sanitary inspector would have to take a large part.

Mr. J. Kerr, M.D., then proposed the toast of "Science and Art," and Sir David Gill, K.C.B., F.R.S., responded.

Mr. J. T. Quinton, Chairman of the Central Executive Council, proposed the toast of "The President," and referred in eloquent terms to the able work the President had performed. In the course of his remarks he said that inspectors ought to be protected. They were called upon to report to men who might dismiss them at the end of twelve months for doing their duty. In England and Wales there were 2,000 separate sanitary authorities, and the Association ought to have a large membership. They endeavoured to secure in every part of the country organised committees in order to bring into line members who stood alone. As to examinations, they had a right to an examination of their own.

The President replied, remarking that the annual conference would be held in the last week in August.

Mr. Lewis Thomas, K.C., proposed the toast of "The Press," Mr. H. H. Spears, Hon. Editor of the *Journal*, responding, and the proceedings terminated.

General Building News.

CHURCH, HALIFAX.

The new church of St. Hilda, Halifax, has been designed by Mr. C. Hodgson Fowler, and it will have a holding capacity for 600 when completed.

SCHOOL EXTENSION, PLYMOUTH.

The Finance and General Purposes Sub-Committee of Plymouth Education Committee have approved the revised plans for the reconstruction of the public school, prepared by Messrs. Hine, Odgers, & May. The plans provide for a school to accommodate 457 boys, 357 girls, and 232 infants, at an estimated cost of about 6,000*l.*

UNIVERSITY COLLEGE, BANGOR.

Lord Kenyon presided at a meeting of the Council of this college, held in the library of the Cymmrodorion Society, London, and was re-elected Chairman for the year. Mr. H. T. Hare, the architect of the new college buildings, submitted designs for the Pritchard-Jones Great Hall, at an estimated cost of 17,000*l.*, which, subject to the approval of the donor, were accepted. The hall will accommodate about 1,000 persons, and includes a large entrance hall, or crush-room, with ample cloak-room accommodation. Mr. H. R. Davies, Treborth, undertook to provide the cost of the four statues which are to be placed on the four external niches of the tower.

SCHOOLS, SWANSEA.

Sir John T. D. Llewellyn, Bart., has just opened the new Oxford-street Church of England Schools at Swansea. The new buildings give a total accommodation for 860. The schools are built on the central-hall principle. The architect was Mr. H. W. Burrows, A.R.I.B.A., who was locally represented by Mr. C. Russell Peacock, architect, Swansea. The contractors were Messrs. David Davies & Sons, Cardiff.

COUNTY COUNCIL OFFICES, DORCHESTER.

The scheme prepared by the Dorset County Architect and Surveyor, Mr. Walter J. Fletcher, to convert the newly-purchased premises in High West-street, Dorchester, Stratton Manor, into County Offices, has been approved. The cost of the work is estimated at 1,000*l.*,

without the furniture. For carrying out the various works of alteration, repair, etc., the tender of Messrs. Watts Brothers has been accepted, and for heating that of Messrs. Ackers & Co., subject, in both cases, to a formal contract being entered into.

FOOTBALL GROUND, NOTTINGHAM.

Work has just been begun on the Notts Football Club's scheme for a new ground. The plans have been prepared by Messrs. W. & R. & F. Booker, of Nottingham, with advice of Mr. William Shepherd, a director of the Notts Club. For the time being it is proposed to provide accommodation for 35,000 people, but the area is sufficiently large to permit of still further extension if need arises. The main feature of the scheme will be the new pavilion, which is to occupy practically the whole of one side of the ground. This structure is to be 130 yds. long, and 10 yds. deep, providing room for fourteen rows of seats from back to front, and accommodating 3,400 spectators. In front there will be a sloping bank, averaging about 11 yds. in depth, with room for 6,500 people, and the roof of the pavilion is to be brought forward so as to cover in about half of this bank. It is expected that the enterprise will cost about 4,000*l.*

EAST CORNWALL HOSPITAL, BODMIN.

Viscount Clifden laid the foundation-stone of the new building of the East Cornwall Hospital, Bodmin, on the 4th inst. The site of the new building is in Rhind-street. Designed by Mr. Morley B. Collins, of Redruth, the hospital will provide for both in-patients and out-patients, the main building consisting of male and female wards, operating-room, kitchen, laundry, and offices, and accommodation for matron and staff. The estimated cost is 3,000*l.*

HALL, HULL.

Prince's Hall, George-street, Hull, which it is proposed to build, is to be used permanently for cinematograph entertainments. The site is a parallel one, running from George-street to Dock-street. The entrance vestibule at the front is 18 ft. by 27 ft. The ground floor will measure 70 ft. by 37 ft., and will have a gangway on either side, and at the back; the main hall measures 90 ft. by 37 ft. On the first floor will be a circle and balcony, and adjacent will be a tea and refreshment lounge. The operating-box will be fireproof. The floors will be supported on steel girders, and the roof will be of steel construction. The new hall will hold about 1,500 persons. The architects are Messrs. Freeman, Son, & Gaskell, of Hull.

ADDITIONS TO BUSINESS PREMISES, YARMOUTH.

Messrs. Arnold Brothers are having an extension made to their shopping premises. The new building will have three floors and a basement, and a feature of the scheme will be an arcade. Messrs. Olley & Haward, of Yarmouth, are the architects concerned, and the building contractors are Messrs. Carter & Wright.

SKATING-RINK, RICHMOND.

A scheme is on foot for the erection at Richmond of a large roller skating-rink, with club-rooms, a rifle range, and a small hall, on the upper part of what is known as the Red Lion-street area. The plans have been prepared by Messrs. Brewer, Smith, & Brewer, architects.

PROPOSED WORKHOUSE IMPROVEMENTS, SOUTHAMPTON.

The Accommodation Committee of the Southampton Board of Guardians have resolved to invite Mr. A. F. Gutteridge, architect, to meet them and advise as to the drainage and structural alterations required at Hollybrook House, which it is proposed to acquire and adapt as an extension to the workhouse.

PAROCHIAL BUILDINGS, GATESHEAD.

The first portion of the Christ Church, Gateshead, parochial buildings is now completed, and was dedicated by the Bishop of Jarrow and opened by Lord Durham recently. The parochial hall will seat 450, and will be used as a Sunday-school and for lectures, meetings, etc., and two temporary classrooms. The architects are Messrs. Hicks & Charlewood, Newcastle. The cost so far will be 1,600*l.*

PAROCHIAL BUILDINGS, WALLSEND.

New parochial buildings have been built adjoining St. Luke's Church at Wallsend. The buildings comprise a main hall with seating for 250 persons and a smaller hall with accommodation for 100. There are also two rooms which will be utilised as meeting-places for the Bible classes and guilds. The buildings were designed by Messrs. Caws, Steele, & Caws, architects, Sunderland, and the contractor was Mr. John Lamb. At a later date it is intended to add a story to the smaller hall and classrooms, and to use the additional accommodation as a men's institute. The scheme so far as it has been carried out has cost 1,900*l.*

HULL BUILDING TRADE.

The building trade of Hull during last year was not particularly brisk, but it compares favourably with previous years; in fact, in some sections of the trade there was great improvement, and the bulk of the men engaged were kept fairly well employed. The year opened quietly, but later on a healthier tone prevailed, and the close was fairly brisk. A large amount of the work done during the year was of a speculative character, and the speculating builder is rapidly extending his operations in the suburbs, and out east quite a new town has sprung up during the past two or three years. Then, again, the construction of the Joint Dock has caused a demand for houses at Marfleet, and already a great many artisans' dwellings have been erected, and building is going on briskly. Capital and labour have worked well together, and there have been no labour troubles worth mentioning. The prospects for 1910 are bright, and there is a fair amount of work already in hand, the principal being the new Town Hall, the almshouses, Pickering Park, Hewitt's new offices, new shops in Baker-street, new Wesleyan church, Plane-street, Sunday-schools, etc., Holderness-road, and a large number of houses in all parts of the city.—*Eastern Morning News.*

NEW BUILDING AT COLCHESTER SCHOOL.

The new buildings, which form an extension of the Colchester Royal Grammar School, were open to public inspection recently. The buildings are in the Tudor style, with embattled parapets, and with stone pinnacles rising from the buttresses. They have been erected from designs by Messrs. J. T. Newman, Jacques, & Round, of London, the contractor being Mr. Saunders, of Dovercourt. The total cost approximates 8,000*l.* The main building, consisting of a hall 65 ft. in length by 38 ft., runs north and south, and has seven classrooms opening into it, together with a library, head master's and second master's rooms, porter's-room, and storeroom. There are altogether ten classrooms now. The main hall has a span roof topped by a cupola, the principals being of pitch-pine filled in with tracery. The hall is overlooked by a gallery, which is divided from the art-room by a sliding partition. The art-rooms are on the first floor. South of the main buildings are the chemical and physical laboratories. The buildings will be lit throughout by electricity, and heated with hot water. The classrooms are all floored with maple blocks. A special feature of the extensions is a quadrangle, which is approached by broad steps.

ADDITIONS TO CENTRAL FREE LIBRARY, BIRMINGHAM.

A new book store has been constructed in the basement of the Central Free Library in Ratcliff-place by the Free Libraries Committee. The new apartment is about 10 ft. in height, and has accommodation for 100,000 volumes. The bookshelves are painted with asbestos paint as a protection from fire. In addition to the electric light, the chamber is partly illuminated by pavement lights and partly by Luxfer prisms. The building is heated from a chamber which is entirely shut off from the books, and the foul air is extracted by means of a ventilating fan. The total cost of the book store and the other alterations and improvements is about 4,700*l.* The architects were Messrs. Martin & Martin.

Stained Glass & Decoration.

MEMORIAL PULPIT, IPSWICH.

A new pulpit has been placed in All Saints' Church, Ipswich. The designs were by Mr. Samuel Wright, the original architect of the church, and were carried out by Messrs. Jones & Willis.

BARWELL CHURCH, HINCKLEY.

The large five-light east window of this church has just been filled with stained glass by Messrs. Percy Bacon and Brothers, of London. The subject depicted in the five lights is "The Ascension of Our Lord."

Appointment.

WORCESTER.

Mr. Vernon Rowe has been appointed Acting County Architect and Surveyor to the Worcester County Council in place of his father, Mr. Alfred R. Rowe, recently deceased, who had held the position for some years.

Sanitary and Engineering News.

MAIDSTONE SEWERAGE WORKS.

On the 25th ult. Mr. H. R. Hooper, M.Inst.C.E., one of the Local Government Board Inspectors, conducted an inquiry at the Town Hall, Maidstone, into the application of the Corporation for permission to borrow 1,227*l.* to reconstruct old sewers at Tovil and in Hartnup-street, and 412*l.* for the repairing, etc., of Pudding-lane. Mr. T. F. Bunting, the Borough Surveyor, was present at the inquiry.

PROPOSED NEW WATER SUPPLY, WARRENPOINT.

Mr. P. C. Cowan, Chief Local Government Board Engineer, recently held an inquiry in the Town Hall, Warrenpoint, touching the petition presented by the Urban Council asking for sanction to a loan of 8,180*l.* for carrying out a waterworks scheme. Mr. Johnson, solicitor for the Council, pointed out that the present supply was constructed in 1875, and was quite inadequate to meet the growing needs of the town. To meet the expansion the Council decided to get a new supply from the Mourne Mountains, which was of the purest character, and was so voluminous as to supply all requirements. Mr. J. H. Swiney, engineer, and Mr. W. J. Watson, engineer, were present at the inquiry.

PROPOSED DRAINAGE WORKS, OCKLEY.

Mr. H. S. Bidwell, Local Government Board Inspector, held an inquiry recently into the application of the Dorking Rural District Council for sanction to borrow 5,500*l.* for the purpose of carrying out a sewerage scheme at Ockley. Mr. Weekes (of the firm of Strachan & Weekes, engineers to the Council for the scheme), in giving a brief technical explanation of the scheme, said that the contour of the ground at Ockley rendered it very difficult, he said, to drain the village. A ridge divided the village, and that made two disposal sites necessary. The one to the west would drain sixty-four houses, with a population of 294, and the east site thirty-nine houses, having a population of 178. The cost of the western section would be 3,000*l.*, and of the eastern section 2,500*l.*

PROPOSED MUNICIPAL IMPROVEMENTS, BIRMINGHAM.

The Birmingham City Council having applied to the Local Government Board for sanction to borrow 1,050*l.* for the purchase of four dwelling-houses in Aston Church-road for purposes of public baths, 750*l.* for purposes of street improvement, and sums amounting to 8,945*l.* for sewerage works and surface-water drainage, Mr. M. K. North, M.Inst.C.E., Local Government Board Inspector, held a public inquiry into the proposals on the 5th inst. Mr. E. V. Hiley, Town Clerk, said that the application to purchase the piece of land arose out of the erection of baths in Aston Church-road, that has been responsible for an infringement of the rights of light of the adjoining properties, which it was proposed to buy outright to avoid litigation. With regard to the 750*l.* loan, it was proposed to widen existing highways known as Garrison-lane, Witton-street, and Watery-lane, in St. Bartholomew's Ward, from 42 ft., the present maximum, to 50 ft. The third loan, of 8,945*l.*, included 2,945*l.* for sewerage works on the Bordesley Green Estate, 3,000*l.* for sewerage works in Cherrywood-road and Fordrough-lane, and 3,000*l.* for works at Somerville-road, on the Digby Estate. Evidence having been given, the Inspector concluded the inquiry.

Miscellaneous.

PROFESSIONAL AND BUSINESS ANNOUNCEMENT.

Mr. J. James Downes, architect, has removed his offices from 199, Lewisham High-road, to Chesham House, Broadway, Deptford, S.E.

SALE OF MODERN FRENCH PICTURES, NEW YORK.

The sale of the late Mr. Theron Butler's collections has realised a total amount of nearly 53,000*l.* The lots comprised Corot's "Un Torrent dans les Ramagnes"—4,200*l.*; Rousseau's "Bosquet d'Arbres"—5,610*l.*; Troyon's "Pasture Grounds in Normandy"—2,620*l.*; "Near Fontainebleau," by Diaz—2,460*l.*; Meissonier's "Innocents et Malins"—2,820*l.*; and Millet's "Labourer Resting"—3,460*l.*, and "A Shepherdess"—6,020*l.*

LONDON AND THE FORTHCOMING SESSION.

The Examiners of Standing Orders have reported for first reading, as complying with statutory orders and notices, the Bill promoted by Stepney Borough Council for taking over

the Whitechapel Hay and Straw Market, and the Bills for the amalgamation of the three "tube" railways, the extension of the Charing Cross, Euston, and Hampstead Railway to Victoria-embankment, with public subways, and exchange of traffic with existing lines there, for which 400,000*l.* further capital will be raised, and the construction of subways beneath Regent-street and Oxford-circus by the Baker-street and Waterloo Railway Company. The Examiners have also passed the London United Tramways Bill, and the three proposed measures for the adoption by certain gas companies of the metropolitan Argand burner "No. 2" as a standard burner in lieu of the various burners now used in official tests of the illuminating power of gas.

WESTMINSTER CATHEDRAL.

A bronze effigy has been placed upon Cardinal Manning's tomb in the cathedral crypt. The tomb stands in a recess just beneath the high altar, and near that of Cardinal Wiseman, removed thither from Kensal Green Cemetery. The effigy of Cardinal Manning was sculptured by Mr. Adams-Acton, and executed by Messrs. Singer & Sons, of Frome; it represents him as robed in his cappa magna and holding his biretta. Vertical strips of green and pale tinted marbles line the sides and back of the recess; on the back wall the tympanum frame is filled in with a slab of black and white breccia from the Pyrenees, and there are red marble panels below and in the coffers of the arch above. The cost of the monument amounts to 700*l.*

PAPER WEIGHTS AS MEMORANDUM TABLETS.

Messrs. S. Trenner & Son send us a couple of specimens of paper weights with a slightly sloping porcelain surface which can be used for immediate memoranda, cleaned off for fresh use each day. It is an ingenious and convenient combination.

AN ART GIFT TO GUILDFORD.

Mrs. G. F. Watts has presented to the Guildford Education Committee for purposes of study in the Technical Institute and School of Art a collection of casts which belonged to her husband, the late G. F. Watts, R.A. The donation comprises fifteen casts in plaster, six of them being from the life, and including that of a negro by B. P. Haydon; with nine from the antique, amongst which are the Discobolus and the Venus of Milo (both full size): Theseus and Ilyssus (small models); a female head and bust, known as the Oxford bust; and a head of Niké.

R. J. SEDDON MEMORIAL.

The memorial to the late Mr. Richard John Seddon, Prime Minister of New Zealand, 1893-1906, for the crypt of St. Paul's, consists of a mural tablet, with portrait, sculptured by Sir George Frampton, R.A.

INDUSTRIAL SCHOOLS, FELTHAM.

It is stated that the Home Office propose to convert the industrial schools at Feltham, accommodating 600 boys, for purposes of a "Borstal" institution, under the Prevention of Crimes Act of 1908. The school was built for the County of Middlesex from plans and designs by Charles Barry.

HOUSING BRANCH OF THE LOCAL GOVERNMENT BOARD.

During the debates on the Housing and Town Planning Act last session Mr. Burns announced his intention of forming a new branch of the Local Government Board, in which would be concentrated the various functions already vested in the Board in regard to the housing of the working classes, together with the duties devolving on the Department under the new Act. The Treasury has assented to the appointment of the necessary staff, and the new Department will shortly be in working order. It includes a comptroller with clerical staff. It has been found necessary to appoint three housing inspectors, who will be concerned not only with inquiries as to the necessity or sufficiency of housing accommodation throughout the country, but whose services will be available in connexion with the inquiries arising out of appeals to the Local Government Board against closing and demolition orders. On the purely sanitary side an addition has been made to the medical inspectorate of the Board by the appointment of Dr. Carnwath, who has had practical experience of the administration of the Housing Acts in Manchester. In connexion with town planning it is understood that the Architects' Department of the Local Government Board has been strengthened by the appointment of Mr. Thomas Adams.

PHŒNIX RULES FOR LIGHTNING CONDUCTORS.

Mr. Killingworth Hedges, Hon. Secretary of the Lightning Research Committee (1905 Report), having been consulted by the Phœnix Assurance Company, has, in conjunction with Sir Oliver Lodge and Mr. Castle Russell, the company's electrical adviser, prepared rules for the erection of lightning conductors, which will shortly be published.

GORTON'S IMPROVED "CLEANING" CASEMENT.

This, of which a model has been sent to us, is a casement provided with a brass lever for moving the heel of the sash along a groove in front of the sill, till the sash stands at right angles to the window opening and can be cleaned on both sides. It does not differ in principle from others that we have seen, but it has the advantage that the whole of the sash, when at right angles, extends outside the window plane, and therefore does not interfere with curtains or other window drapery.

HAMPSTEAD GARDEN SUBURB.

Mr. Henry Vivian, Chairman of the Hampstead Tenants, Ltd., opened, on Saturday last week, a new clubhouse, erected at a cost of 3,000*l.*, on Willifield-green, for the use of the residents in the Hampstead Garden Suburb, from a design by Mr. Raymond Unwin. The First Hampstead Tenants have built 239 self-contained houses, and fifty-four small-co-partnership houses for aged persons, etc., at a total cost of 124,000*l.* Altogether on the suburb there are now about 600 houses and a population of about 3,000. The total number of houses when all the land is covered will be 3,000 and the population about 15,000.

PUBLIC IMPROVEMENTS IN GUILDFORD.

At a recent inquiry held at Guildhall into an application by the Town Council for a provisional order granting compulsory powers under the Lands Clauses Acts for the purchase of land for public improvements, Mr. C. G. Mason, the Borough Engineer, replying to the Inspector, Mr. F. H. Tulloch, said that the corporation had recently had an unfortunate experience in obtaining properties by private treaty. When land was acquired in Park-street, most exorbitant and unreasonable sums had to be paid, ranging from the rate of 20,000*l.* per acre to between 40,000*l.* and 50,000*l.* per acre.

APPOINTMENT OF SANITARY OFFICERS.

During the Christmas recess the Local Government Board has sanctioned the undermentioned appointments, etc., of sanitary officers:—Metropolitan Borough of Camberwell—Appointment of Mr. H. C. Green in the place of Mr. C. H. Kerslake, deceased. Metropolitan Borough of Deptford—Increases in the salaries of Mr. J. V. Snowdon and Mr. J. Owner; and of an increase in the salaries of Messrs. T. Turner, R. D. J. Simpson, A. Priest, and P. Shelley. Metropolitan Borough of Stepney—Allocation of 5 per cent. of the salaries of Mr. Dee and Mr. Waterman as remuneration for the supervision of new drainage works; and allocation of 5 per cent. of the salary of Mr. H. Abson, sanitary inspector, as remuneration as assistant officer under the Local Government Board's general order under the Regulations as to Food Act.

THE PRESERVATION OF OLD EDINBURGH.

A meeting was held on the 3rd inst. in the Outlook Tower, Edinburgh, Lord Kingsburgh in the chair, to consider the desirableness of federating in some manner a number of existing organisations all interested in the preservation of Old Edinburgh and the general amenity of the city. The Cockburn Association, it seems, is on the eve of being dissolved, but those who have been connected with it and others think the time has come when a new organisation with the same objects in view should be formed on a wider and more popular basis. Among the speakers were Mr. W. B. Blaikie, Professor Baldwin Brown, Mr. Thomas Ross, architect, Professor Geddes, Sir James Balfour Paul, and Mr. Victor Paton. Professor Geddes suggested that in order to stir up interest in the subject they might have an Old Edinburgh and an New Edinburgh Exhibition in one of the public galleries. The proposal was regarded as one to be kept in view rather than pressed at present. There would be no time, it was thought, to organise such an exhibition this year, and Glasgow was holding a Scottish Historical Exhibition next year, to which Edinburgh was to contribute. After a free interchange of views the meeting was of opinion that as a first step a conference of the several bodies interested in the subject should be called, and for this purpose a small executive was nominated to arrange preliminaries.—*Scotsman.*

THE BOMBAY HOUSING QUESTION.

Lord Sandhurst will preside at a meeting of the Indian Section of the Royal Society of Arts on Thursday, February 17, when a paper on "The Bombay Housing Question" will be read by Mr. G. Owen Dunn, Chairman Bombay City Improvement Trust, 1904-1909. The chair will be taken at 4.30.

Law Reports.

CLAIM AGAINST AN ARCHITECT FOR ALLEGED NEGLIGENCE.

THE case of Gibb *v.* Schintz came before Mr. Pollock, the Official Referee, on the 3rd inst.—an action by the plaintiff, Mr. J. G. Gibb, an architect, for fees and remuneration alleged to be due for work done for the defendant, Miss Dora Schintz, of Childwall Hall, Liverpool, on her estate at Thickthorn, near Kenilworth.

A gentleman named Cox said he was trustee of the estate of the plaintiff, and was not in a position to proceed with the plaintiff's claim that day, as plaintiff was away in Yorkshire.

After discussion, it was agreed that Mr. F. A. Greer, counsel for the defendant, should open her counterclaim for damages for alleged breach of duty by the plaintiff.

Mr. Greer said that the main question was the same on claim and counterclaim, namely, whether the plaintiff really performed his duty under his engagement, and, if he did not do so, how much damages he was liable to pay. The case was somewhat complicated, but substantially the general nature of the complaints defendant made against plaintiff was this:—He was an architect, employed by Miss Schintz to overlook drawings and specifications, to advise her, and to supervise work carried out by contractors for her at Thickthorn. The defendant said that plaintiff carried out this duty so badly and negligently that he was practically of no service to her, but, on the contrary, caused her considerable loss, because he allowed bad work and wrong work to be passed.

Mr. H. Hartley, a Liverpool architect, described in detail the defects which were found in the building. The mortar used was of bad quality, and had no combining property, which was a serious detriment to the value of the property.

After some further evidence, the Official Referee said after the evidence that he had heard he did not see how Mr. Cox could resist the defendant's claim to some extent. He had himself seen the premises, and had seen quite enough to satisfy him that a great part of the work was executed in a most disgraceful way—not, of course, by Mr. Gibb, but Mr. Gibb ought to have been there for the purpose of protecting Miss Schintz. Under the circumstances he did not see how it was possible for Mr. Gibb to recover any sum due to him for remuneration. Not only had he not fulfilled his contract, but he had acted in such a way as to cause Miss Schintz considerable expense.

Mr. Cox said he agreed, but he should like to know what interest Miss Schintz had in the property, and whether she had spent her own money on it.

Mr. Greer said Miss Schintz, with her brother, was the legal owner of the property. She was the assignee of his right, and had spent her own money on the property.

After consultation between the parties,

Mr. Greer said it was arranged that judgment should be for the defendant on the claim, with costs to be added to her claim against plaintiff's estate; judgment for Miss Schintz also on the counterclaim for 500*l.* and costs, to be proved in the Bankruptcy Court, for which costs plaintiff was not to be personally liable.

WESTMINSTER ANCIENT LIGHT DISPUTE.

THE case of Smith *v.* the Anglo-American Oil Company, Ltd., was mentioned to Mr. Justice Joyce in the Chancery Division on the 4th inst., on the form of the order referring the case to Mr. John Slater, an architect, for the purpose of his reporting on the matter in dispute to the Court.

In this case the plaintiff, the owner of the freehold houses Nos. 40 and 42, Queen Anne's-gate, Westminster, brought the action against the defendant company to restrain an alleged obstruction of ancient lights by a building now in course of erection by the defendants on the site of Nos. 36 and 38, Queen Anne's-gate, lately pulled down. (The facts of the case were reported in last week's issue of the *Builder.*)

Mr. Hughes, K.C., and Mr. Sheldon appeared for the plaintiff; and Mr. Younger, K.C., and Mr. Neville for the defendants.

Mr. Younger suggested that the respective models prepared by each party should be submitted to Mr. Slater.

Mr. Hughes, on behalf of the plaintiff, raised no objection to that, but urged the desirability of one gentleman attending before Mr. Slater as the representative of each party. Defendants had suggested that two should attend.

Mr. Younger said that the reason was this: There were two ways in which the case might be met, viz., from the point of view of the ordinary practical man—that the interference

LAW REPORTS.—*Continued on page 185.*

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this Number: Competitions, iv.; Contracts, iv. vi. viii. x.; Public Appointments, xvi.; Auction Sales, xxiv.

Certain conditions, beyond those given in the following information, are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bonâ-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

***** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

Competitions.

JANUARY 1-MARCH 1. — **Leeds.** — PREMISES. — The Directors of the Leeds Industrial Co-operative Society, Ltd., invite architects to submit competitive drawings and estimates for new business premises and offices, to be erected on the site of the old "Mercury" office, Albion-street, Leeds. Premiums of 100*l.*, 50*l.*, and 25*l.* respectively are offered, and will be awarded to the authors of the designs and plans placed first, second, and third by the assessor appointed by the directors. Conditions of competition, etc., will be forwarded on application to the Secretary, on receipt of stamped addressed foolscap envelope, accompanied with a deposit of 2*l.* 2*s.*

FEBRUARY 10-MARCH 31. — **Sheffield.** — CHURCH. — Plans desired for church for 650, institute for 150, primary department for 125, junior department for ninety-five, and caretaker's apartments, Endcliffe Park. Premium, not merged in commission, 35*l.* Assessor, Mr. Chas. Hadfield, F.R.I.B.A. Questions until Febuary 10. On receipt of 5*s.* the Secretary will furnish conditions and instructions, with plan of site. Deposit returned only to those who send plans. Secretary, Mr. J. W. Nicholls, 64, Everton-road, Brocco Bank, Sheffield.

MARCH 12. — **Blyth.** — SECONDARY SCHOOL. — The Governors of the Blyth Secondary School (acting for the Blyth U.D.C.) invite architects whose offices are situate in the counties of Northumberland, Durham, and Newcastle-upon-Tyne to submit plans in competition for a new secondary school and caretaker's house, to be erected at Blyth. The school is to accommodate 280 pupils. The competition will be conducted in accordance with the regulations of the Royal Institute of British Architects. The assessor appointed is Mr. J. A. Gotch, F.R.I.B.A., F.S.A. Copies of the conditions and of the plan of site may be obtained from Mr. Thos. R. Guthrie, Clerk to the Governors.

MAY 31. — **Karachi.** — MUNICIPAL OFFICE. — **The Municipality of Karachi invite elevation designs and detailed plans and estimates for a new Municipal Office. For further particulars see advertisement in our issue of December 25.**

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

FEBRUARY 14.—**Coventry.**—ALTERATIONS, ETC., TO WORKSHOPS.—The Gas Committee of the Coventry Corporation invite tenders for alterations and additions to workshops at their City Works. Drawings may be seen, and specification, etc., obtained, on payment of 1*l.* 1*s.*

FEBRUARY 14.—**Earlsheaton.**—VILLA.—For a villa residence at Bank Top, Earlsheaton. Plans, etc., at the offices of Messrs. Barton & Son, architects, Halifax-road, Dewsbury.

FEBRUARY 14.—**Merthyr Tydfil.**—COTTAGE, ETC.—Erection of a cottage, stabling, walling, etc., on the estate of Mr. W. T. Crawshaw, near the lower end of the Gurnos-road, Cyfarthfa Park. Plans, etc., may be seen, and further particulars obtained, upon application to the Borough Engineer.

FEBRUARY 14. — **Porthcawl.** — ALTERATIONS. — For alterations to be done at the Dorothy Restaurant, John-street, Porthcawl, for the Young Men's Christian Association. The specification may be obtained from the Secretary, Mr. D. J. Rees, Brynderwen, South-road, Porthcawl.

FEBRUARY 14. — **Porthcawl.** — POST-OFFICE. — New post-office at Porthcawl. Plans, etc., can be seen at office of Mr. John H. Phillips, F.R.I.B.A., 7, Pembroke-terrace, Cardiff, and quantities obtained, by deposit of 1*l.* 1*s.*

FEBRUARY 15. — **Blisworth.** — COUNTY COUNCIL SCHOOL.—Tenders are invited for the erection of a new public elementary school and teachers' house in the Parish of Blisworth, Northampton. Names to the architects, Messrs. Brown & Mayor, of 80, Abington-street, Northampton.

FEBRUARY 15. — **Burton-upon-Trent.** — SCHOOL WORKS.—The Education Commitee invite tenders for the erection of new water-closets and alterations at its Grange-street School. The plans may be seen, and bills of quantities obtained, at the Education Offices, Guild-street.

FEBRUARY 15. — **Golcar.**—RESIDENCES.—Erection of two semi-detached residences in Soarhouse-lane, Golcar. Plans, etc., at office of Mr. Arthur Shaw, architect, Golcar.

FEBRUARY 15. — **Kinsale.** — COTTAGES.—The Kinsale R.D.C. invite tenders for building cottages. Schedules of cottages to be erected, and plots to be fenced, etc., can be had on application to Mr. John Murphy, Clerk of Council, Council Office, Kinsale Workhouse.

FEBRUARY 15.—**Swindon.**—STONE-BREAKING YARD.—For building a stone-breaking yard at the Workhouse, Stratton St. Margaret, for the Guardians of the Swindon and Highworth Union. Specification, etc., can be obtained at the office of the architect, Mr. R. J. Beswick, M.S.A., 10, Victoria-road, Swindon.

FEBRUARY 15. — **Marsh.** — HOUSE. — Works (except mason's) required in the erection of one dwelling-house, Luck-lane, Marsh. Plans may be seen, and quantities obtained, at offices of Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge and Huddersfield.

* FEBRUARY 15. — **Wednesfield.** — SCHOOL. — The Staffordshire Education Committee invite tenders for a new Council School, etc., at Lichfield-road, Wednesfield. See advertisement in this issue for further particulars.

FEBRUARY 16. — **Langley Moor.** — COTTAGES. — Brandon and Byshottles Co-operative Society, Ltd., Meadowfield, Brandon, Durham, invite tenders for the erection of cottages at Langley Moor. Plans, etc., may be seen by appointment. Mr. James Turner, Secretary.

FEBRUARY 16.—**Preston.**—OFFICES.—The Corporation invite tenders for the erection of weights and measures and billposting offices and workshops, Tithebarn-street. Plans may be seen, and specification, etc., obtained of the Borough Surveyor, Town Hall, Preston, on payment of 1*l.* 1*s.*

FEBRUARY 16.—**Sunderland.** — ALTERATIONS, ETC.—The Committee of the Boys' Industrial School invite tenders for the alterations and repairs to the old Board of Trade Offices, Sunderland. Plan may be seen, and quantities obtained, on application at office of Mr. George W. Bain, Hon. Secretary, 46, John-street, Sunderland, upon payment of 10*s.* 6*d.* deposit.

FEBRUARY 17. — **Aughnacliffe.**—STORE, ETC.—Tenders are invited by the Columbkille Co-operative Agricultural and Dairy Society, Ltd., Aughnacliffe, Co. Longford, for the erection of an agricultural store, and also a village hall. Plans, etc., can be seen and examined at the Creamery Office.

FEBRUARY 18. — **Birmingham.** — POST-OFFICE.—The Commissioners of H.M. Works and Public Buildings invite tenders for the erection of Hockley Hill new branch post-office, Birmingham. Drawings, etc., may be seen on application to Mr. J. Tosh, H.M. Office of Works, General Post-office, Birmingham. Bills of quantities, etc., may be obtained at office of Secretary, H.M. Office of Works, etc., Storey's Gate, London, S.W., on payment of 1*l.* 1*s.*

FEBRUARY 18.—**Hannahstown.**—COTTAGE.—Belfast R.D.C. invite tenders for building and fencing one single cottage in the Townland of Hannahstown. Plans, etc., may be inspected, and tender forms for the work can be obtained, at the office of the Clerk to the R.D.C.

FEBRUARY 18.—**Linthwaite.**—HOUSES.—Works required in the erection of twelve dwelling-houses, Manchester-road, Linthwaite. Plans may be seen, and quantities obtained, at offices of Messrs. Lunn & Kaye, architects, Milnsbridge.

FEBRUARY 19. — **Sheffield.**—RETAINING WALL.—The Improvement Committee of the City Council invite tenders for the erection of a rubble stone retaining wall on the west side of Chesterfield-road, near Smithy Wood. Drawings may be seen, and conditions of contract, etc., obtained, on application to the City Engineer, Town Hall, Sheffield, upon payment of the sum of 10*s.*

FEBRUARY 21.—**Distington (Cumberland).**—SHOP, ETC.—For works in erection of shop, warehouse, and dwelling-house for Mr. C. Clarke. Plans, etc., can be seen at the office of Messrs. W. G. Scott & Co., architects and surveyors, 2, Park-lane, Workington.

FEBRUARY 21.—**Royton.**—URINALS.—The U.D.C. of Royton invite tenders for the carrying out of the work comprised in the public urinals to be erected in Oldham-road and Bleasdale-street, Royton. Particulars, etc., may be obtained from the architect, Mr. Ernest Woodhouse, F.R.I.B.A., of 88, Mosley-street, Manchester. Plans can be seen at the Town Hall, Royton, as well as at the architect's office.

FEBRUARY 22. — **Sheffield.** — ALTERATIONS, ETC., TO COLLEGE.—The Education Committee invite tenders for the works required to be done in extensions and alterations of the Training College for Teachers, Collegiate-crescent. Drawings, etc., may be seen, and bills of quantities, etc., obtained, on application to the City Architect, at the Town Hall, Sheffield.

FEBRUARY 23.—**Merthyr Tydfil.**—SWIMMING BATH.—For a swimming bath at the South Wales and Monmouthshire Truant School. Plan, etc., can be seen at the office of Mr. C. M. Davies, architect, High-street, Merthyr.

FEBRUARY 23.—**Thorne.**—ALTERATIONS.—For alterations, etc., to the Workhouse Infirmary, for the Guardians. Particulars, etc., may be obtained from Mr. Harold Forster, architect, North Field, Thorne, Yorks.

* FEBRUARY 24. — **London, E.**—ALTERATIONS.—The Guardians of the Hamlet of Mile End Old Town invite tenders for alterations in building used as kitchen at Workhouse in Bancroft-road, Mile End, E. See advertisement in this issue for further particulars.

FEBRUARY 28. — **Merthyr Tydfil.** — HOUSES.—Twenty-two terrace houses in three blocks, and six pairs of semi-detached villas, together with the construction of roads, sewers, etc., on the Meyrick Estate, Gwaelodygarth Field, Merthyr Tydfil, for the Grove Building Club. Drawings, etc., can be seen, and forms of tender obtained, at the office of Mr. T. Edmund Rees, architect and surveyor, Merthyr Tydfil.

FEBRUARY 28. — **Newburn.** — OFFICES. — Newburn U.D.C. invite tenders for proposed Council Offices. Drawings, etc., may be seen, and form of tender obtained, at the office of Mr. Edward Cratney, architect, 88, Station-road, Wallsend, by whom bills of quantities will be supplied on payment to him of a deposit of 2*l.* 2*s.*

* MARCH 1.—**Chester.**—ADDITIONS TO SCHOOL.—The City of Chester invite tenders for alterations and additions to a public elementary school in Victoria-road, Chester. See advertisement in this issue for further particulars.

MARCH 4.—**Saddleworth Uppermill.**—SCHOOL.—The West Riding Education Committee invite tenders for Saddleworth Uppermill new school. Plans may be seen, and specifications, etc., obtained, on application to the Education Architect, County Hall, Wakefield. A sum of 1*l.* must be sent by separate letter to the West Riding Treasurer, County Hall, Wakefield.

MARCH 5.—**New Ross.**—WORKHOUSE WORKS.—New Ross Guardians invite tenders for proposed works of sanitation and alteration to Workhouse:—(1) Drainage and water supply; (2) erection and completion of sanitary annexes, etc.; (3) plumbing and hot-water circulation; (4) erection of a new kitchen and annexe at the Fever Hospital. Plans, etc., may be seen at the Board-room, New Ross, and at the office of the architect, Mr. J. A. Ryan, 33, Catherine-street, Waterford.

* MARCH 5. — **Sale.** — SCHOOL.—The Governors of the County High School for Girls, Sale, invite tenders for school for girls at Sale. See advertisement in this issue for further particulars.

NO DATE.—**Ballymena.**—HOUSE.—Parochial House, Ballymena, Co. Antrim, for Very Rev. T. O'Donnell, P.P.V.F. Plans, etc., can be obtained at the office of Messrs. Moore & Flanigan, architects, 35, Royal-avenue, Belfast.

NO DATE. — **Leominster.** — HOUSE.—Herefordshire C.C. Small Holdings and Allotments Committee invite tenders for the erection of a house on No. 10 holding, Nordan Farm, near Leominster. Plan, etc., may be seen at office of Mr. Ernest W. Hill, County Land Agent, 132, St. Owen-street, Hereford, and bill of quantities obtained, on payment of 1*l.* 1*s.*

ENGINEERING, IRON, AND STEEL.

FEBRUARY 14.—**Edinburgh.**—ELECTRIC LIGHTING.—The Lord Provost, Magistrates, and Council invite tenders for the electric lighting installation at the sheep-killing hall and other buildings in connexion with the new slaughter-houses, Gorgie. The specification, etc., can be obtained at the Engineer's Office, Dewar-place, Edinburgh, on payment of a deposit of 1*l.* 1*s.*

FEBRUARY 14. — **London.** — BRIDGEWORK. — Burma Railways Company, Ltd., Board of Directors are prepared to receive tenders for the supply of bridgework (6-100 ft. spans). For each copy of the specification a fee of 1*l.* will be charged, which will not be returned. Mr. W. Home, Managing Director, 199, Gresham House, Old Broad-street, E.C.

FEBRUARY 14. — **Long Ashton.**—ACETYLENE GAS.—The Guardians invite tenders for the installation of the acetylene gas at their Workhouse. All particulars to be obtained from the Master.

FEBRUARY 14. — **Manchester.**—PLANT.—The Town Hall Committee invite tenders for the supply and fixing complete of an electric power plant, with all engineering work, to operate the bellows of the Town Hall organ. Drawing may be seen, and specification, etc., obtained, at the office of the City Architect, Town Hall, upon payment of 2*l.* 2*s.* All cheques or postal orders are to be made payable to the order of the Corporation of Manchester.

FEBRUARY 15. — **Manchester.** — TRAMWAYS.—The Tramways Committee invite tenders for the supply of permanent-way points, tongues, and hardened steel centres. Specifications, etc., may be obtained on application to Mr. J. M. M'Elroy, General Manager, Corporation Tramways, 55, Piccadilly, Manchester, on deposit of 1*l.* 1*s.*

FEBRUARY 16.—**Glasgow.**—ELECTRIC MOTORS, ETC.—The Corporation invite tenders for the supply and erection of three electric motors, machine tools, shafting, gearing, belting, engineer's and smith's

ENGINEERING—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

tools, and accessories, for equipment of the work-shop at Shieldhall Outfall Works. Specifications, etc., may be obtained at the Office of Public Works, City-chambers, 64, Cochrane-street, by depositing 2*l.* 2s.

FEBRUARY 16.—**Sheerness.**—HEATING ARRANGEMENTS.—For heating arrangements, for the Guardians, at the infirmary and other wards of the Workhouse, Minster. A committee will meet intending contractors at the Workhouse by appointment. Letters to be sent to the Master, Sheppey Union, Minster, near Sheerness.

FEBRUARY 19.—**Paddock Wood.**—HEATING APPARATUS.—Kent Education Committee invite tenders for the construction of a heating chamber and the installation of heating apparatus required to be carried out at Paddock Wood Girls' and Infants' Council School. Specifications can be seen, and further information obtained, at the offices of the Correspondent, Mr. W. H. Tompsett, Barham House, Capel, Tonbridge, Kent.

FEBRUARY 21.—**London.**—REPAIRS TO LOCK GATES.—The Directors of West London Extension Railway Company invite tenders for repairs to the lock gates at Chelsea Dock. Drawings, etc., may be seen, and forms of tender, etc., obtained, at the office of the Engineer, Paddington (G.W.R.) Station.

FEBRUARY 22.—**London.**—RAILS, ETC.—The Secretary of State for India in Council is prepared to receive tenders for supply of (1) crossings and switches; (2) rails; (3) fishplates. The conditions of contract may be obtained on application to the Director-General of Stores, India Office, Whitehall, S.W.

FEBRUARY 22.—**London.**—WOODWORKING MACHINERY.—The Secretary of State for India in Council invites tenders for the supply of woodworking machinery. The conditions of contract may be obtained on application to the Director-General of Stores, India Office, Whitehall, S.W.

FEBRUARY 22.—**Solihull.**—LAUNDRY MACHINERY, ETC.—Solihull and Meriden R.D.C. Joint Isolation Hospital Committee invite tenders for providing and fixing laundry machinery, disinfector, hot and cold water services, etc., and cooking apparatus, at the new isolation hospital, Catherine-de-Barnes, Solihull. Firms tendering must take their own particulars of plans and specifications at the office of the architect, Mr. W. H. Ward, Paradise-street, Birmingham.

FEBRUARY 22.—**Ynyscynhaiarn.**—TELESCOPIC GASHOLDER AND TANK IRONWORK.—A double lift gasholder required by the U.D.C., and ironwork for concrete tank. Forms of tender, etc., can be obtained from Mr. R. Bruce Anderson, Engineer to the Council, 5, Victoria-street, Westminster, on payment of 10s. 6d., not returnable.

FEBRUARY 26.—**Llandudno.**—COAL CONVEYOR.—The Llandudno U.D.C. invite tenders for the supply, delivery, and erection of an overhead tipping tray coal conveyor. Plans, etc., to be obtained from Mr. H. Morton, Electricity Works, Llandudno.

✱ MARCH 1.—**Epsom.**—WEIGHBRIDGE.—The Guardians of the Epsom Union invite tenders for a 10-ton weighbridge at Workhouse, Epsom. See advertisement in this issue for further particulars.

APRIL 14.—**Cairo.**—MAIN PUMPING MACHINERY.—The Ministry of Public Works of the Egyptian Government invites tenders for a sewage pumping plant. Conditions on application to Mr. A. L. Webb, C.M.G., Queen Anne's-chambers, Broadway, Westminster, London, S.W., or the Commercial Intelligence Branch of the Board of Trade, London.

NO DATE.—**Mansfield.**—RAILWAY.—The Mansfield Sand Company, Ltd., invite tenders for a branch railway, one-third of a mile in length, from the Midland Railway into their sand pit at Mansfield, Notts. Apply to Messrs. G. & F. W. Hodson, M.Inst.C.E., Loughborough.

MISCELLANEOUS.

FEBRUARY 14.—**Banbury.**—HAULING.—Banbury R.D.C. invite tenders for hauling road material. Forms can be obtained of the Council's Surveyor, Mr. H. Gander, No. 11, Broughton-road, Banbury.

FEBRUARY 14.—**Banbury.**—LABOUR.—The Banbury R.D.C. desires to contract for manual labour upon district roads. Form to be obtained of the District Surveyor, Mr. Henry Gander, Surveyor's Office, 11, Broughton-road, Banbury.

FEBRUARY 14.—**Carlisle.**—SCAVENGING.—The R.D.C. invite tenders for the removal of the contents of the ashpits, etc., in Stanwix Township; also for watering the streets or roads in Stanwix Township. Further particulars from the Clerk, 7, Victoria-place, Carlisle.

FEBRUARY 15—**Bermondsey.**—TWO SLOP VANS.—The Council invite tenders for the supply of two London-made slop vans. Specification and particulars can be obtained of Mr. R. J. Angel, M.Inst.C.E., Borough Surveyor.

FEBRUARY 16.—**Oldham.**—FURNITURE, ETC.—Wanted, tenders for the supply of furniture and appliances for the fitting-up of the extensions to the infirmaries of the Workhouse. Particulars from Mr. Horace A. Quarmby, Clerk to the Guardians, Union Clerk's Offices, Rochdale-road, Oldham.

FEBRUARY 16.—**Spilsby.**—TEAM LABOUR.—Spilsby R.D.C. invite tenders for leading materials for the repair of main roads and other highways from railway stations and wharves. Forms of tender, etc., may be had on application to the District Highway Surveyor or to the Sub-Surveyors of the several parishes in the Rural District.

FEBRUARY 17.—**Brixworth.**—CARTING.—Brixworth R.D.C. invite tenders for the carting of materials during the ensuing year. Tender forms can be obtained from Mr. Wykes, 5, Elysium-terrace, Northampton.

FEBRUARY 17.—**Dore.**—HAULING.—Dore R.D.C. invite tenders for hauling for the roads in their district. Forms of tender, etc., can be obtained from the Surveyors, viz.:—Mr. J. Lewis, Ewias Harold; and Mr. P. Gwililm, Cwm Dulas, Pontrilas.

FEBRUARY 17.—**Leicester.**—LAMPS AND LAMP COLUMNS.—The Watch Committee invite tenders from local firms for the supply of copper lamps and iron columns. Full information, etc., may be obtained by applying to the Superintendent of Lighting, Mr. John Tebb, at his office, No. 7, Belgrave-gate.

FEBRUARY 18.—**Great Ouseburn.**—CARTING.—The R.D.C. invite tenders for carting stone and other materials. Forms of tender may be obtained from Mr. Charles Cawood, Wixley, Surveyor to the Council; or from Mr. F. S. Capes, Solicitor and Clerk to the Council, Boroughbridge.

FEBRUARY 18.—**Northampton.**—CARTING.—Northamptonshire C.C. Roads and Bridges Committee invite tenders for the carting of metal. Forms of tender and schedule of quantities may be obtained from Mr. C. S. Morris, County Surveyor, County Hall, Northampton.

FEBRUARY 21.—**Derby.**—TEAM LABOUR.—Derbyshire C.C. invite tenders for team labour required on the main roads during the year ending March 31, 1911. Forms of tender, etc., may be obtained at office of Mr. J. W. Horton, County Surveyor, County Offices, St. Mary's Gate, Derby.

FEBRUARY 22.—**Houghton-le-Spring.**—REPAIRS.—The Guardians invite tenders for repairs (masons' and plumbers' work). Printed forms of tender may be obtained on application to the Master of the Workhouse, or to Mr. Robt. B. Marley, Clerk to the Guardians, Union Offices, Houghton-le-Spring, S.O.

FEBRUARY 22.—**Southall.**—GATES, ETC.—Southall Norwood U.D.C. invite tenders for supplying and fixing of entrance gates and wrought-iron unclimbable fencing, etc., at Southall Park. Drawings, etc., may be seen, and forms of tender, etc., obtained, at office of Mr. Reginald Brown, A.M.Inst.C.E., F.S.I., Engineer and Surveyor to the Council, Public Offices, Southall, Middlesex.

FEBRUARY 26.—**Hereford.**—FIRE ALARM BELLS.—Herefordshire C.C. invite tenders for the installation of a system of fire alarm bells at the Training College. Plans, etc., may be seen, and form of tender obtained, at the office of the County Surveyor, Shirehall, Hereford.

FEBRUARY 26.—**Hove.**—REMOVAL OF HOUSE REFUSE.—Tenders are invited for collection and removal of the house refuse from all houses and buildings within the Borough, for the period of three years. Further particulars may be obtained, and a copy of the contract to be entered into seen, at the Town Clerk's Office, Town Hall, Hove.

FEBRUARY 28.—**London.**—LOCKS, ETC.—The Commissioners of Customs and Excise invite tenders for the supply and repair of padlocks and keys during the next three years. Full particulars may be obtained on application by letter or personally to the Office Surveyor, Custom House, Lower Thames-street, E.C., at whose office a specimen lock and key may be seen.

MARCH 1.—**Beddington.**—SCAVENGING.—The Beddington Parochial Committee invite tenders for the weekly collection and removal of house and garden refuse, and for the supply of horses and carmen for street watering. Forms of tender, etc., may be obtained at the offices of the Croydon R.D.C., Katharine-street, Croydon.

MARCH 16.—**Middlesex.**—CARTAGE, ETC.—Cartage of stone, chippings, and gravel. Particulars, etc., may be obtained at offices of Mr. H. T. Wakelam, M.Inst.C.E., County Engineer and Surveyor, Middlesex Guildhall, Westminster, S.W.

PAINTING, etc.

FEBRUARY 14.—**Knaresborough.**—PAINTING.—The Harrogate and Knaresborough Joint Isolation Hospital Committee invite tenders for painting the interior and exterior of the Isolation Hospital, Thistle Hill, Knaresborough. The specification may be obtained at office of Mr. J. Turner Taylor, Town Clerk, Harrogate, Municipal Offices, Harrogate.

FEBRUARY 16.—**Goole.**—PAINTING.—For painting work at the Council's Small-pox Hospital, Dutch River side, for the U.D.C. Specification, etc., may be obtained on application to the Town Surveyor.

FEBRUARY 16.—**Toxteth Park, Liverpool.**—PLUMBING WORK.—The Guardians invite tenders for plumbing work, etc., at their Workhouse, Smithdown-road, Liverpool. Plans, etc., may be seen at the office of Mr. Walter W. Thomas, architect, 15, Lord-street, Liverpool.

FEBRUARY 17.—**Salford.**—DECORATING.—Tenders are invited for decorating the assembly room and anterooms at the Salford Town Hall. The specification, etc., may be obtained at the Borough Engineer's Office, Town Hall, Salford.

MARCH 1.—**Larbert.**—PAINTING.—The P.C. of Larbert invite tenders for painting and decorating the Dobbie Hall, Larbert. Specifications may be had from Mr. Alex. Smith, Clerk of the Parish Council, Larbert, on payment of a fee of 10s. sterling.

ROADS, SANITARY, AND WATER WORKS.

FEBRUARY 14.—**Dunmurry.**—SEWERAGE.—The Lisburn R.D.C. request tenders for carrying out all the work included in making house connexions at Dunmurry, according to the specification, etc., as prepared by their Engineer, Mr. James Hunter, B.E., Antrim-road, Lisburn. Copies of specification, etc., can be obtained at the Council's Offices, The Workhouse, Lisburn, by application to the Clerk, on payment of 10s. 6d.

FEBRUARY 14.—**Leeds.**—PAVING.—The Highways Committee invite tenders for the paving and flagging of private streets. Drawings may be seen at the City Engineer's Office, Municipal Buildings. Forms of tender, etc., may be obtained, and copies of the documents forming the contract inspected, on application at the Highways Office, 155, Kirkstall-road, Leeds.

FEBRUARY 15.—**Cheshunt.**—STREET WORKS.—The U.D.C. of Cheshunt invite tenders for levelling, metalling, kerbing, channelling, and making good Albury-ride. Plans, etc., may be seen, and form of tender obtained, at the office of Mr. J. E. Sharpe, Engineer and Surveyor, Manor House, Cheshunt, on payment of a deposit of 2*l.* 2s.

FEBRUARY 15.—**Sharpham.**—WATER WORKS.—The R.D.C. of Wells invite tenders for providing and laying 1,300 yds. of 2-in. cast-iron water main in Sharpham-drove. Specification, etc., prepared by Engineer, Mr. William Phelps, C.E., of Shepton Mallet. Copies of the schedule may be obtained at his office.

FEBRUARY 16.—**Bedwas.**—STREETS AND SEWERS.—Construction of about 750 ft. of new street and sewers at Bedwas, Monmouthshire. Plans, etc., may be seen at office of Mr. A. E. S. Thomas, Pengam, *vid* Cardiff, or Bedwas.

FEBRUARY 16.—**Bournemouth.**—ROAD WORKS.—Making-up King's Park-road, Pine-avenue (first portion), and Beech-avenue. Full particulars, etc., may be obtained of the Borough Engineer, Mr. F. W. Lacey, at whose office drawings can be seen, provided that the sum of 1*l.* 1s. has been previously deposited.

FEBRUARY 16.—**Chadderton.**—STREET WORKS.—Chadderton U.D.C. invite tenders for sewering, paving, flagging, and completing Whitehead-street, Rose-street, Union-street, and passage behind Old-lane and Spencer-street. Particulars may be obtained at the Surveyor's Office, Town Hall, Chadderton.

FEBRUARY 16.—**Herne Bay.**—MAKING-UP.—Herne Bay U.D.C. invite tenders for the making-up of Stanley-road. Plans, etc., can be seen, and forms of tender obtained, from Mr. F. W. J. Palmer, Surveyor to the Council, Town Hall, Herne Bay.

FEBRUARY 17.—**Bedford.**—PAVING.—The Authority invite tenders for paving and road-making in Eastville-road, Bedford, according to plans, etc., which can be seen, and any other information obtained, at the Borough Surveyor's Office, Town Hall, Bedford.

FEBRUARY 17.—**Sidmouth.**—ENLARGING CEMETERY.—Sidmouth Burial Board invite tenders for enlargement of cemetery. Plans, etc., to be seen at office of Mr. J. Albert Orchard, Clerk to the Burial Board, Sidmouth, or at the office of the Architect, Mr. S. Dobell, 79, Queen-street, Exeter.

FEBRUARY 19.—**Bilston.**—PRIVATE STREET WORKS.—The U.D.C. invite tenders for the execution of the works, Lewis-street. Plans, etc., may be seen, and bill of quantities and form of tender obtained, on application to Mr. Vincent Turner, A.M.Inst.C.E., Engineer and Surveyor, Town Hall, Bilston.

FEBRUARY 19.—**Sale.**—ASPHALTING.—Sale U.D.C. invite tenders for team labour hire and asphalting of footpaths for the year ending March 31, 1911. Form of tender may be obtained on application to the Surveyor, Council Offices, School-road, Sale.

FEBRUARY 19.—**Worcester.**—SEWAGE DISPOSAL WORKS.—The Corporation invite tenders for works for contract No. 6 of the Sewage Disposal Works of the City of Worcester. Drawings may be seen at the offices of Mr. T. Caink, A.M.Inst.C.E., City Engineer, Guildhall, Worcester, where also the schedule of quantities, etc., can be obtained on the deposit of 2*l.* 2s.

✱ FEBRUARY 21.—**Camberwell.**—ROAD-MAKING.—The Camberwell B.C. invite tenders for kerbing, channelling, foundations for asphalt paving and road work in Ruskin-walk (part of), Half Moon-lane. See advertisement in this issue for further particulars.

FEBRUARY 21.—**Chadwell Heath.**—PRIVATE STREET AND SEWERAGE WORK.—Romford R.D.C. invite tenders for the construction of about 550 yds. of 12-in. stoneware pipe sewer, and for the making-up of private streets at Chadwell Heath, in the Parish of Dagenham. The drawings, etc., may be seen, and form of tender, etc., obtained, on application to Mr. W. J. Grant, Surveyor to the Council, Victoria-chambers, Romford, on payment of a cheque for 2*l.* 2s.

FEBRUARY 21.—**Chard.**—STREET IMPROVEMENT.—The B.C. invite tenders for works of levelling, paving, metalling, channelling, and making good Cambridge-street. Plans, etc., may be seen at the office of the Borough Surveyor, where tender forms may be obtained on payment of a deposit of 1*l.*

FEBRUARY 21.—**Chobham.**—ROAD.—Chertsey R.D.C. invite tenders for the construction of a new road at Fowler's Well, Burrowhill. Plan, etc., may be seen by appointment at the Surveyor's office, Chobham.

FEBRUARY 21.—**Wellingborough.**—WATER SUPPLY WORKS.—For water supply to the Village of Isham, for the R.D.C. Drawings, etc., may be seen at the office of Messrs. Sharman & Archer, engineers, Wellingborough.

FEBRUARY 22.—**Frinton-on-Sea.**—STREET WORKS.—The U.D.C. invite tenders for the sewering and making-up of the 15 ft. right of way between Old-road and Connaught-avenue. Plans, etc., may be seen, and bills of quantities, etc., obtained, on application at the Council Offices to Mr. E. M. Bate, Surveyor to the Council, and on deposit of a cheque for 2*l.* 2s.

FEBRUARY 22.—**Mountain Ash.**—STREET WORKS.—The U.D.C. invite tenders for private street works in a short length of Woodland-street, Mountain Ash, near the Graig Isaf Quarry, and the Recreation Ground. Plans, etc., may be seen, and forms of tender, etc., obtained, on application to Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

FEBRUARY 22.—**Newport, Isle of Wight.**—LAYING PIPES, ETC.—The T.C. invite tenders for the supply of 30 yds. of 12-in. cast-iron spigot and socket pipes, etc., and for the carting and the excavation for and laying of the same from the pumping station to the new main adjoining at Carisbrooke, and the supply of valves, hydrants, etc. A plan of the works may be seen, and specifications, etc., may be obtained, at office of Mr. T. Ross Pratt, Town Clerk, Town Clerk's office, 19, Quay-street, Newport, I.W.

FEBRUARY 23.—**Birmingham.**—CONSTRUCTION OF SURFACE-WATER SEWERS.—The Public Works Committee invite tenders for the construction of about two and a half miles of 9-in. to 21-in. stoneware pipe sewers, 500 yds. of 2 ft. 6 in. to 4 ft. diameter brick and concrete sewers, together with an overflow chamber, etc., in the Floodgate-street and Macdonald-street areas, and in the neighbourhood of Cannon Hill Park. The plans, etc., may be seen, and quantities, etc., obtained, at the office of Mr.

ROADS, etc.—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

Henry E. Stilgoe, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham, on deposit of the sum of 2*l*.

FEBRUARY 25. — **Merton.** — MAKING-UP. — Merton U.D.C. invite tenders for making-up private streets. Plans, etc., may be seen, and forms obtained (on payment of 2*l*.), on application to Mr. G. Jerram, Surveyor, Council Offices, Merton.

✱ FEBRUARY 28.—**Streatham, S.W.**—ROAD-MAKING. —The Wandsworth B.C. invite tenders for making-up and paving part of Greyhound-lane, Streatham. See advertisement in this issue for further particulars.

MARCH 1. — **Ballymena.** — WATERWORKS. — The U.D.C. invite tenders for the extension of the existing water supply. Plans, etc., may be seen, and a copy of the specification, etc., can be obtained, upon payment of 1*l*. 1s. (which will not be returned), at the office of the engineers, Messrs. Swiney & Croasdaile, MM.Inst.C.E., Avenue-chambers, Belfast.

MARCH 1.—**Beaconsfield.**—STREET IMPROVEMENT.—The U.D.C. invite tenders for the reconstruction of the public highway, known as the Station and Penn-road, Beaconsfield. Plans, etc., may be seen at the office of the Surveyor to the Council, Mr. H. Sargeant, Baring-road, Beaconsfield, from whom forms of tender may be obtained on deposit of 5*l*. 5s.

MARCH 3.—**Huddersfield.**—SEWERAGE WORKS.—The Corporation invite tenders for the construction of stoneware and cast-iron pipe sewers in various parts of the Borough, and the installation of a system of sewage-disposal works at Bradley. Drawings, etc., upon application to the Borough Engineer, Mr. K. F. Campbell, M.Inst.C.E., M.Inst.E.E., on payment of the sum of 3*l*. 3s.

MARCH 8. — **Stratford-on-Avon.** — WELLESBOURNE SEWERAGE AND SEWAGE DISPOSAL: CONTRACT No. 1.—The R.D.C. of Stratford-on-Avon invite tenders for 3,000 yds. of stoneware pipe sewers, etc. Drawings, etc., may be seen, and bills of quantities, etc., obtained, at the offices of the engineers, Messrs. Willcox & Raikes, 63, Temple-row, Birmingham, on payment of a deposit of 3*l*. 3s.

MARCH 14.—**Stanhope.**—SEWAGE WORKS.—Stanhope U.D.C. invite tenders for laying 3,160 yds., or thereabouts, of main sewer, and the construction of tanks, filters, and irrigation area. Plans, etc., may be seen and quantities, etc., may be obtained, on application to the Council's Engineer, Mr. J. S. Parker, A.M.Inst.C.E., Post-office-chambers, St. Nicholas-square, Newcastle-on-Tyne; or the Council's Surveyor, Mr. J. R. Ridley, at his office at the Town Hall, Stanhope. Deposit of 1*l*.

MARCH 19. — **Halifax.** — FILTERS. — The Highways Committee invite tenders for the construction of fourteen percolating filters (8 ft.-90 ft. and 6 ft.-85 ft. diameter) at the Sewage Disposal Works (five contracts). Plans, etc., may be seen, and forms of tender obtained, on application to Mr. James Lord, M.Inst.C.E., Borough Engineer, Town Hall, Halifax, upon payment of the sum of 10*l*. for each set of quantities.

NO DATE.—**Exeter.**—ROADS, ETC.—For formation of roads, footpaths, and sewers at Exhibition Fields, Pinhoe-road, Exeter. Names to Mr. Archibald Lucas, F.S.I., A.R.I.B.A., architect and surveyor, Guildhall-chambers, Exeter.

STONES, MATERIAL, AND STORES.

FEBRUARY 14. — **Beverley.**—STONE.—Beverley D.C. Highways Committee invite tenders for the supply of about 3,000 to 4,000 tons of stone for macadamising their roads. Particulars, etc., may be obtained on application to Mr. E. Picker, C.E., Surveyor, Beverley.

FEBRUARY 14. — **Bolton.**—TIMBER.—The Guardians invite tenders for the supply of 350 tons of timber (suitable for cutting for sale for firewood). A printed form of tender may be obtained on application at office of Mr. H. I. Cooper, Clerk to the Guardians, 28, Mawdsley-street, Bolton.

FEBRUARY 14. — **Macclesfield.** — MATERIALS. — For road stone, copper slag, setts, edging stones, walling rubble, earthenware pipes, and roadmen's shovels, picks, etc. Forms of tender may be had on application to the Assistant Clerk, at the Union Offices, Macclesfield.

FEBRUARY 14. — **Middleton Cheney.** — GRANITE.—Middleton Cheney R.D.C. invite tenders for the supply of the best Hartshill or other granite. Specifications, etc., may be obtained of Mr. H. Pickering, District Surveyor, Helmdon, Brackley.

FEBRUARY 14.—**Portsmouth.**—GOODS.—The Tramways Committee invite tenders for the supply of goods from April 1, 1910, to March 31. The specification, etc., may be obtained upon application to the Engineer, Mr. V. G. Lironi, M.Inst.M.E., A.M.Inst.E.E., Engineer's Offices, Fratton-grove, Portsmouth.

FEBRUARY 14. — **St. Marylebone.** — CONTRACTS.—The B.C. invite tenders for works and materials for one year. Forms may be obtained on application at the Town Hall, Marylebone-lane, Oxford-street, W.

FEBRUARY 14.—**Selby.**—WHINSTONE.—Selby U.D.C. invite tenders for the supply of whinstone. Mr. Bruce McG. Gray, A.M.Inst.C.E., Engineer and Surveyor, Council Offices.

FEBRUARY 15.—**Battersea.**—MATERIALS.—The Battersea B.C. invite tenders for materials, etc. Forms of tender may be obtained from Mr. W. Marcus Wilkins, Town Clerk, Town Hall, Battersea.

FEBRUARY 15. — **Stockton-on-Tees.**—ANNUAL SUPPLIES.—The Gas and Electricity Committees of the Stockton-on-Tees Corporation invite tenders for the several articles and stores required by them for the year ending March 31, 1911. Forms of tender, etc., may be obtained of the Borough Surveyor, Gas Manager and Electrical Engineer.

FEBRUARY 15. — **Torquay.** — VALVES, ETC.—Tenders are invited for the supply of materials and stores for the year (sluice valves, fire hydrants, stop cocks, etc., cast-iron covers, etc.). Forms of tender, etc., may be obtained from Mr. Samuel C. Chapman, A.M.Inst.C.E., Water Engineer, Town Hall-chambers, Torquay, upon the receipt of a stamped addressed foolscap envelope.

FEBRUARY 15. — **Towcester.** — ROAD MATERIALS.—Towcester R.D.C. invite tenders for supply of road materials. Forms of tender, etc., may be obtained on application to Mr. W. Sheppard, of Towcester, Surveyor to the Council.

FEBRUARY 16. — **Bacup.** — ANNUAL CONTRACTS.—The Corporation invite tenders for materials. Further particulars and forms of tender can be had on application at the Borough Surveyor's Office.

FEBRUARY 16. — **Gravesend.**—GRANITE.—Gravesend and Milton Guardians require a cargo of Guernsey granite spalls, not exceeding 500 tons. Forms of tender to be had on application at office of Mr. Wm. Jno. King, Clerk to the Guardians.

FEBRUARY 16. — **London.**—PORTLAND CEMENT.—The East Indian Railway Company invite tenders for the supply and delivery of Portland cement, as per specifications to be seen at the company's offices, Nicholas-lane, London, E.C. For each specification a fee of 1*l*. 1s. is charged, which cannot under any circumstances be returned.

FEBRUARY 16. — **Louth.**—GRANITE AND SLAG.—The R.D.C. invite tenders for the supply of 11,000 tons of granite and 3,000 tons of slag. Forms of tender may be had on application to Mr. F. C. Chard, Clerk, Council House, Louth.

FEBRUARY 16. — **Mutford.** — ROAD MATERIALS.—The R.D.C. of Mutford and Lothingland invite tenders for the supply of granite, flint, gravel, path shingle, etc. Forms of tender, etc., can be obtained of the Council's Surveyor, Mr. S. G. Bloy, Oulton Broad, Lowestoft.

FEBRUARY 16. — **Rawtenstall.** — MATERIALS AND LABOUR. — The Corporation invite tenders for the supply of road metal, earthenware pipes and gullies, timber, pitch and creosote oil, Portland cement (British), etc. Forms of tender can be obtained on application to the Borough Surveyor, Municipal Offices, Rawtenstall.

FEBRUARY 16. — **Uckfield.** — MATERIAL, ETC.—The R.D.C. of Uckfield invite tenders for material, haulage, carting, and the hire of a steam road roller. Particulars may be obtained from Mr. E. W. Ray-Johnson, Surveyor's Office, Buxted, Uckfield, and will be forwarded on receipt of a stamped addressed envelope.

FEBRUARY 17. — **Aston Manor.** — STORES. — The Public Works Sub-Committee invite tenders for materials and stores. Forms of tender, etc., may be obtained at office of Mr. F. W. Richardson, Borough Surveyor, Council House, Aston Manor.

FEBRUARY 17.—**Hornsey.**—STORES.—The T.C. invite tenders for materials, etc., for one or three years. Forms of tender, etc., can be obtained from Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Municipal Offices, No. 99, Southwood-lane, Highgate.

FEBRUARY 17. — **Southampton.**—MATERIALS, ETC.—The Southampton Harbour Board invite tenders from local firms for work and supply of goods. Schedules, etc., may be obtained at the offices of the Board, Town Quay, Southampton.

FEBRUARY 17.—**Wigston Magna.**—GRANITE.—The U.D.C. invite tenders for broken granite. Forms to be obtained at the office of the Surveyor, Station-road, Wigston Magna.

FEBRUARY 18.—**Burton-upon-Trent.**—MATERIALS.—Tenders for the supply of materials, goods, tools, etc., for six or twelve months. Forms of tender may be had on application at the Borough Surveyor's office.

FEBRUARY 18.—**Greenwich.**—CONTRACTS.—The B.C. invite tenders for contracts. Schedules, specifications, etc., can be obtained from the Borough Engineer and Surveyor's Office, Town Hall, Greenwich-road, S.E.

FEBRUARY 18.—**Hull.**—STONE.—The Corporation invite tenders for the supply of about 7,500 tons of stone for macadamising. Forms of tender, etc., may be obtained at the City Engineer's office.

FEBRUARY 18. — **Leeds.** — YEARLY STORES. — The Waterworks Committee invite tenders for the supply of goods during the year. Forms to be obtained at the Waterworks Engineer's Office, Leeds.

FEBRUARY 18. — **Northampton.** — GRANITE. — Northamptonshire C.C. Roads and Bridges Committee invite tenders for the supply of broken granite. Forms of tender, etc., may be obtained from Mr. C. S. Morris, County Surveyor, County Hall, Northampton.

FEBRUARY 18. — **Westminster.**—MATERIALS, ETC.—The Westminster City Council invite tenders for the execution of works and the supply of materials, articles, etc., for twelve months. Specifications, etc., may be obtained on application at the Town Clerk's Office, Westminster City Hall, Charing Cross-road, W.C.

FEBRUARY 19. — **Ipswich.**—GENERAL STORES.—Tenders are invited by the Corporation for the stores required for the twelve months commencing April 1 next. Specification, etc., can be obtained from Mr. Frank Ayton, Chief Engineer and Manager.

FEBRUARY 19.—**Maidstone.**—ROAD MATERIAL, ETC.—Maidstone R.D.C. invite tenders for road material, team labour, disinfectants, brushes, and shovels. Forms of tender, etc., to be had from Mr. T. A. Busbridge, Surveyor, Bower Mount-road, Maidstone.

FEBRUARY 19.—**Maldens.**—SUPPLIES.—The Maldens and Coombe U.D.C. invite tenders for supplies, etc. Forms of tender, etc., will be furnished upon application by letter, with stamped addressed foolscap envelope, or call at the Clerk's Department, Council Offices, New Malden, and after payment of a deposit of 1*l*. 1s. (cash or postal order only) for each form.

FEBRUARY 19. — **Northampton.**—MATERIALS.—The Corporation of Northampton invite tenders for the supply of materials for a period of twelve months. Specifications, etc., may be obtained on application to Mr. Alfred Fidler, M.Inst.C.E., Borough Engineer.

FEBRUARY 19. — **Rathmines and Rathgar.** — SUPPLIES.—The U.D.C. invite tenders for the supply of articles for the year. Form supplied at the Surveyor's office Town Hall, Rathmines.

FEBRUARY 19.—**Sale.**—MATERIALS.—Sale U.D.C. invite tenders for the supply of flags, kerbs, gritt setts, macadam, granite chippings, etc. Forms of tender and all particulars may be obtained at the office of Mr. William Holt, A.M.Inst.C.E., Engineer and Surveyor, Council Offices, Sale.

FEBRUARY 19. — **Sibsey.** — GRANITE AND SLAG.—Sibsey R.D.C. invite tenders for granite and slag. Forms to be obtained on application to Mr. John M. Simpson, Clerk to the Council, 28, Wide Bargate, Boston.

FEBRUARY 19. — **Southgate.** — CONTRACTS. — The U.D.C. of Southgate invite tenders for the supply and delivery of 4,000 tons (more or less) of broken granite, and for paving works, paving materials, and hardcore; also for the supply and delivery of goods. Specifications, forms of tender, etc., may be obtained on application to Mr. C. G. Lawson, C.E., the Council's Surveyor.

FEBRUARY 19. — **Wisbech.**—GRANITE, ETC.—Wisbech R.D.C. invite tenders for the supply of road material. Forms of tender for both the north and south districts may be obtained on application to the Highway Surveyor for the north district, Mr. A. G. Catling, 4, Post-office-lane, Wisbech.

FEBRUARY 21.—**Banbury.**—HARTSHILL STONE.—The T.C. invite tenders for the supply of Hartshill stone for one year. Forms of tender, etc., can be obtained on application at office of Mr. N. H. Dawson, C.E., Borough Surveyor, Town Hall, Banbury.

FEBRUARY 21. — **Derby.**—STORES.—The B.C. invite tenders for the supply of materials, etc., for twelve months. Samples of the various materials can be seen upon application at the Borough Surveyor's Office. Printed forms of tender, etc., may be obtained upon application at the office of Mr. John Ward, M.Inst.C.E., Borough Surveyor, Borough Surveyor's Office, Babington-lane, Derby.

FEBRUARY 21.—**East Grinstead.**—ROAD MATERIALS. —The R.D.C. invite tenders for the supply of materials. Forms of tender, etc., will be sent to any person on receipt by Mr. Francis S. White, Clerk to the Council, East Grinstead, of a stamped addressed foolscap envelope.

FEBRUARY 21. — **Finsbury.** — MATERIALS, ETC. — The Finsbury B.C. invite tenders for the supply of works and articles from March 31 next. Particulars, etc., may be had on application at the Borough Surveyor's Department, at the Town Hall, Rosebery-avenue, E.C., and at the Cleansing Superintendent's office, 26, Wharf-road, City-road, N.

FEBRUARY 21. — **Ilford.**—CONTRACTS.—Ilford U.D.C. invite tenders for annual contracts. Forms of tender, etc., may be obtained on application at the Surveyor's Department, Town Hall, Ilford.

FEBRUARY 21. — **Leeds.**—MATERIALS.—Leeds Tramways Committee invite tenders for the supply of material during the year. Conditions may be obtained on application to Mr. J. B. Hamilton, General Manager.

FEBRUARY 21.—**Sowerby Bridge.**—RETORTS, ETC.—The Gasworks Committee invite tenders for the supply of retorts, firebricks, fireblocks, fireclay, etc. Specifications, etc., can be obtained on application to Mr. A. W. Bissell, Engineer, Gasworks, Sowerby Bridge.

FEBRUARY 21. — **Stafford.**—ANNUAL SUPPLIES.—The Corporation of Stafford invite tenders for the supply of stores and materials. Forms of tender may be had on application to Mr. W. Plant, Borough Engineer, Borough Hall, Stafford, on payment of 5s. each.

FEBRUARY 21. — **Whitefield.** — MATERIALS. — The Whitefield U.D.C. invite tenders for the supply of materials during the year. Specifications, forms of tender, etc., may be obtained on application to Mr. C. H. Wright, C.E., Surveyor, at the Council Offices.

FEBRUARY 22. — **Doncaster.** — GRANITE, ETC.—The R.D.C. of Doncaster invite tenders for the supply of dross and granite. Specifications, etc., may be obtained on applying to Mr. W. R. Crabtree, Highway Surveyor, at the Union Offices, High-street, Doncaster.

FEBRUARY 22. — **Ilford.**—CONTRACTS.—Ilford U.D.C. invite tenders for the supply of meters, lamps, etc., required at their Electricity Works during the year. Specifications, etc., may be had on application to Mr. Arthur H. Shaw, M.Inst.E.E., A.M.Inst.E.E., Electricity Works, Ley-street, Ilford, Essex.

✱ FEBRUARY 22. — **Willesden.** — WORKS AND MATERIALS.—The Willesden D.C. invite tenders for execution of works and supply of materials. See advertisement in this issue for further particulars.

FEBRUARY 22.—**Woodford.**—ROAD MATERIALS, ETC.—Woodford U.D.C. invite tenders for small granite and granite chippings, tar, pitch, and creosote oil. Particulars, etc., may be obtained from Mr. William Farrington, Surveyor to the Council, Council Offices, Woodford Green, Essex.

FEBRUARY 22.—**York.**—ARTICLES.—The Corporation invite tenders for the supply of articles during the year ending March 31, 1911. Forms of tender will be supplied upon application to office of Mr. F. W. Spurr, City Engineer, Guildhall, York.

FEBRUARY 23. — **Belfast.** — STORES AND WORK.—The Works Committee invite tenders for the supply of stores and work. Forms of tender, etc., may be obtained at the office of the Superintendent of Works, City Hall.

FEBRUARY 23. — **Brighton.** — MATERIALS.—The B.C. invite tenders for the supply of materials and laying of tar macadam on King's-road, Brighton. The specification, etc., may be obtained on application at office of Mr. Hugo Talbot, Town Clerk, at the Town Hall, Brighton, on payment of 2*l*. 2s.

FEBRUARY 24. — **Croydon.** — MATERIALS. — The Croydon R.D.C. invite tenders for broken granite, flints, tar paving material, and tar paving work, etc. Forms of tender, etc., can be obtained on application to Mr. Ernest John Gowen, Clerk of the Council, D.C. Offices, Katharine-street, Croydon.

FEBRUARY 24.—**Farnborough.**—HARTSHILL STONES. —The Farnborough R.D.C. invite tenders for the supply of Hartshill stones and chippings. Mr. Arthur Fairfax, Clerk to the Council, Banbury.

FEBRUARY 24. — **Flaxton.** — MATERIALS.—Flaxton R.D.C. invite tenders for the supply of whinstone,

STORES, etc.—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

broken and unbroken, also for broken annealed and common slag. Forms of tenders can be obtained from Mr. Joseph Peters, Clerk to the above Council, 4, New-street, York, on receipt of a stamped addressed envelope.

FEBRUARY 24.—**Thakeham.**—ROAD MATERIAL.—Thakeham R.D.C. invite tenders for road material (including tar) and cartage. Full particulars and forms of tender may be obtained from Mr. Wm. Forrester, Surveyor, Storrington, Sussex.

FEBRUARY 25.—**Merton.**—MATERIALS, ETC.—Merton U.D.C. invite tenders for granite, tar paving, Portland cement, stoneware pipes, etc. Applications for forms of tender must be made to Mr. C. J. Mountfield, Clerk to the Council, District Council Offices, Kingston-road, Merton, Surrey, and must be accompanied by a stamped addressed foolscap envelope.

FEBRUARY 25.—**Walthamstow.**—SUPPLIES, ETC.—The U.D.C. invite tenders for the supply of broken granite for macadam, granite kerb and setts, tools, etc. Forms of tender may be obtained on application at the office of the Medical Officer of Health, Town Hall Annexe, Walthamstow.

FEBRUARY 26.—**Newton-in-Makerfield.**—SUPPLIES.—The U.D.C. invite tenders for the supply of materials for one year. Printed forms of tender may be obtained from the Stores Clerk, Gasworks, Earlestown.

* FEBRUARY 26.—**Stepney, E.**—WORKS AND MATERIALS.—The Stepney B.C. invite tenders for contracts for one year, from March 31 next. See advertisement in this issue for further particulars.

FEBRUARY 26.—**Swindon.**—MATERIALS.—The Corporation of Swindon invite tenders for the supply and delivery of materials, etc. Forms of tender, etc., can be obtained on written application to Mr. H. J. Hamp, Borough Surveyor, Town Hall, Swindon.

FEBRUARY 28.—**Claypole.**—ROAD MATERIALS.—The R.D.C. invite tenders for the supply of about 2,200 tons of granite and 2,500 tons of slag. Further particulars may be obtained upon application to the District Surveyor, Mr. F. C. Meyrick, Beckingham Rectory, Newark, upon receipt of a stamped addressed foolscap envelope.

FEBRUARY 28.—**Ealing.**—MATERIALS.—The T.C. of the Borough of Ealing invite tenders for the supply of limes, pipes, etc.; cement, paints, oils, etc.; granite, flints, gravel, hoggin and sand, slab-laying, etc. Printed forms of tender, etc., may be obtained on application to the Borough Surveyor, Mr. Charles Jones, M.Inst.C.E., at his office, Town Hall, Ealing, W.

FEBRUARY 28.—**Goole.**—MATERIALS.—Goole U.D.C. Highways and Sewers Committee invite tenders for the supply of stores and materials. Forms of tender, etc., may be obtained by applying to Mr. C. G. Bradley, Engineer and Surveyor, Engineer and Surveyor's office, Goole.

* FEBRUARY 28.—**Salisbury Plain.**—REPAIRS AND MATERIALS.—The Secretary of State for War invites tenders for artificers' work at Salisbury Plain (western section). See advertisement in this issue for further particulars.

FEBRUARY 28.—**Southampton.**—STONE.—Supply of stone for the repair of the main roads. Forms of tender, etc., may be obtained on application to Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

FEBRUARY 28.—**Tenterden.**—GRANITE, ETC.—The T.C. invite tenders for the supply of granite or other approved macadam and Kent ragstone; the carriage and steam rolling of the above; also for mason's work in the Borough. Further particulars, etc., may be obtained of Mr. W. L. C. Turner, Borough Surveyor, Town Hall, Tenterden.

MARCH 1.—**Shoreditch.**—ANNUAL CONTRACTS.—The B.C. invite tenders for articles and works for one year. Forms of tender can be obtained on application to Mr. H. Mansfield Robinson, Town Clerk, Shoreditch Town Hall, Old-street, E.C.

MARCH 2.—**Barking Town.**—ANNUAL CONTRACTS.—The Council invite tenders for the supply and delivery of goods and the execution of works. Forms of tender, etc., may be obtained at the Surveyor's office, Public Offices, Barking, where the standard samples may be seen.

MARCH 4.—**Reading.**—STORES, ETC.—The Corporation of Reading invite tenders for the supply for a term of one year of stores and works. Forms of tender on application at office of Mr. John Bowen, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Reading.

MARCH 4.—**Rotherham.**—ROAD MATERIAL AND CARTING.—The Rotherham R.D.C. invite tenders for the supply of granite and slag; also for the carting. Specifications, etc., may be obtained from Mr. R. Bradbury, District Surveyor, Imperial-buildings, Rotherham.

MARCH 4.—**Valletta.**—STONEWARE PIPES, ETC.—For supply of stoneware pipes and specials. Particulars, etc., may be obtained on application at office of the Crown Agents for the Colonies, Whitehall-gardens, London.

MARCH 5.—**Sevenoaks.**—MATERIALS.—The R.D.C. invite tenders for the supply of quartzite, basalt, or penlee, ragstone, chert, flints, etc.; the cartage from stations and depôts; and the steam rolling for the whole of the district. Specifications, etc., may be obtained on application at office of Mr. F. H. Vibert, Clerk of the Council, Bank-chambers, 82, High-street, Sevenoaks, or from Mr. R. Bailey, Sundridge, Sevenoaks, and Mr. J. Randerson, Leigh, Kent, Surveyors to the Council.

MARCH 5.—**Warrington.**—MATERIALS.—The Water Committee invite tenders for the supply of materials for a period of twelve months. A deposit of 10s. per section is required. Mr. James Gray, Engineer, Municipal Offices, Warrington.

MARCH 9.—**South Shields.**—STORES.—The Corporation invite tenders for the supply for their Electricity Works, West Holborn, of engine-room stores, tools, etc., for the year. Conditions, etc., may be seen, and all information obtained, on application to Mr. J. H. Cawthra, M.Inst.E.E., Borough Electrical Engineer, temporary offices, Mill Dam, South Shields.

MARCH 14.—**Middlesbrough.**—ROAD MATERIALS, SANITARY PIPES, TIMBER, SPECIAL CASTINGS, ETC.—The Streets Committee invite tenders for the supply of bricks, concrete, flags and kerbs, Portland cement, etc. Specifications, etc., may be obtained on application at the Borough Engineer's office.

MARCH 15.—**Manchester.**—VALVES AND IRONWORK.—The Waterworks Committee invite tenders for the supply of manual valves, automatic valves, reflux valves, sluice valves, air valves, and miscellaneous ironwork. Specification, etc., may be obtained on application to Messrs. G. H. Hill & Sons, civil engineers, Albert-chambers, Albert-square, Manchester, and 3, Victoria-street, Westminster, upon receipt of a cheque for 2*l.* 2*s.* A limited number of copies of the drawings (uncoloured) are available, and will be lent to persons tendering in priority of application on receipt of the sum of 3*l.* 3*s.*, which sum will not be returned.

MARCH 16.—**Middlesex.**—GRANITE.—Supply of basalt or granite and chippings. Particulars, etc., may be obtained at offices of Mr. H. T. Wakelam, M.Inst.C.E., County Engineer and Surveyor, Middlesex Guildhall, Westminster, S.W.

Public Appointments.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*CLERK OF WORKS	East Riding Lunatic Asylum	See advertisement in this issue	Feb. 21
*DRAUGHTSMAN	Metropolitan Water Board	100*l.* per annum	Feb. 26

Auction Sales.

Nature and Place of Sale.	By whom Offered.	Date of Sale.
*PAPERHANGINGS AND VARNISHES, REDCROSS-STREET, E.C.—On the Premises	Fryer, Cooper, & Co.	Feb. 17
*BUILDING ESTATE, BROXBOURNE, HERTS—At New Hall, Broxbourne	Bridgman & Son and Rogers, Chapman, & Thomas	Mar. 17

LAW REPORTS.—*Continued from page* 181.

with the light of the plaintiff's house was of no practical importance, and that it was merely a technical interference (if any).

His lordship: I am not going to make it a hearing before Mr. Slater. There is a provision that he can have what assistance he likes. I would suggest that one gentleman on either side should attend him on one occasion, and on such other occasion (if any) as he may desire.

Mr. Younger said that these orders were made with a view to the getting of the best possible report.

In the result it was agreed that the representatives on either side should attend "if and when desired." It was also agreed that, apart from the steel construction, the work should not be proceeded with above the cornice on the western boundary of the house formerly known as No. 38, Queen Anne's-gate, and that the hearing of the trial should be expedited as soon as possible.

PEMBROKE ANCIENT LIGHT CASE.

THE case of Price and another *v.* Ford came before a Divisional Court of King's Bench, consisting of Justices Phillimore and Bucknill, on the 4th inst., upon the defendant's appeal from a decision of Judge Bishop, sitting at the Pembroke Dock County Court.

Mr. M. Richards appeared for the appellant, and Mr. C. A. Russell, K.C., and Mr. Barnes for the respondents (plaintiffs).

Mr. Richards, in opening the case for the appellant, said that the learned County Court judge had granted a mandatory injunction against the defendant ordering him to pull down a portion of a wall which divided the properties of the plaintiffs and the defendant, and reduce it to the height which it previously was. The premises in question were in Dock-street, Pembroke. Plaintiffs alleged that the wall was a party wall, and if raised it would materially diminish the light of the plaintiffs' property. The County Court judge found that the wall was the defendant's, but that there would be an infringement of light, and granted the injunction in question. He (counsel) contended that there was no evidence upon which the learned County Court judge could find that there was a diminution of light.

Mr. Justice Phillimore: The learned County Court judge visited the premises, and that is evidence enough.

Mr. Richards contended that in any case the County Court judge should not have granted a mandatory injunction, but an inquiry as to damages. He submitted that the learned judge had misdirected himself.

Mr. Russell, on behalf of the respondents, contended that there was evidence that the defendant's building, when erected as proposed, would be a nuisance, and diminish the plaintiffs' light.

Mr. Justice Phillimore: The learned judge thought it was enough that the defendant's building would diminish the light of the plaintiffs' building, whereas he ought to have found more than that.

Mr Russell said that he would not object to the second part of the injunction being struck out.

Their lordships directed that the injunction should be amended in the way suggested by the learned counsel, and directed that the respondents should have the costs of the appeal.

Patents.

APPLICATIONS PUBLISHED.*

710 of 1909.—Henry Bleckly Bourne and Walter Fox Bourne: Composite materials for use as substitutes for metal, wood, and other hard substances.

805 of 1909.—George Prowett Simons and Charles Redshaw: Doors or shutters of hoists or lifts.

1,515 of 1909.—Kristof Fraunhoffer, Tamas Fraunhoffer, and Miklos Schneider: Roofing tiles.

1,601 of 1909.—Ludwig Isenburg, Paul Kuhn, and the British Mannesmann Tube Company, Ltd.: Pipes having reinforced sockets and the manufacture thereof.

2,096 of 1909.—Louis Barbieri: Windows.

2,154 of 1909.—David Smith and Albert Willerton Smith: Domestic fireplaces for heat-producing, and fuel-saving, and smoke-consuming.

* All these applications are in the stage in which opposition to the grant of a patent upon them can be made.

5,151 of 1909.—Frederick William Follows: Mills for grinding paint and other materials.

7,655 of 1909.—Alfred John Barton: Manhole and handhole covers for hot-water tanks or cylinders and the like.

8,027 of 1909.—Jonathan Dransfield: Manufacture of pipe holdfasts, such as those commonly used for securing gas, water, or other pipes.

8,038 of 1909.—Alfred Chatwin, James Chatwin, trading as Thomas Chatwin, and Harry Ewart Partridge: Apparatus for facing or preparing pipes for the purpose of making joints.

9,766 of 1909.—Johannes Stumpf and Ferdinand Stange: Windows.

12,019 of 1909.—George Stoker: Soldering aluminium or its alloys.

14,953 of 1909.—Leo Tell: Latch or lock and bolt mechanism for doors and the like.

15,188 of 1909.—Alfred Neville Edwards: Pneumatic bolt for doors and the like.

15,710 of 1909.—Nels John Billstrom: Feeders for wood planing and jointing machines.

15,755 of 1909.—Herbert James Beresford: Window-holders for sliding sashes.

17,907 of 1909.—Andrew Cochran: Water-closet bowls or basins.

18,358 of 1909.—Johannes Degenhardt: Framings for skylights, windows, glass partitions, and the like.

20,531 of 1909.—John Levick: Hot and cold water taps and valves.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

January 27.—By STIMSON & SONS.

Walworth.—56, Alvey-st. (s.), u.t. 40½ yrs., g.r. 7*l.* 5s., v.r. 65*l.*	£500
Herne Hill.—Norwood-rd., l.g. rents 71*l.* 8s., u.t. 48¼ yrs., g.r. 20*l.*	760
St. Pancras—Euston-st., l.g. rents 49*l.* 19s., u.t. 9¾ yrs., g.r. 8*l.*	135
Kingsland.—3, Port Royal-pl. (s.), u.t. 33 yrs., g.r. 6*l.*, e.r. 75*l.*	100
New Cross.—120, Jerningham-rd., u.t. 61 yrs., g.r. 7*l.*, e.r. 45*l.*	380
Battersea.—174, Mevrick-rd., f., w.r. 42*l.* 18s.	175
Tottenham.—12, Talbot-rd., f., y.r. 35*l.*	400

January 28.—By DOLMAN & PEARCE.

Hampstead.—167, Adelaide-rd., u.t. 43 yrs., g.r. 5*l.*, p.	600

January 31.—By WALLER & KING (at Southampton).

Southampton.—21, Bernard-st., and 43, Orchard-la. (s.), u.t. 12 yrs., g.r. 6*l.* 6s., y.r. 50*l.*	200
New-rd., Netley Nursery, u.t. 976 yrs., g.r. 3*l.*	300
33, Aberbeen-rd., f., w.r. 19*l.* 10s.	240

February 1.—By GEORGE LOVEITT & SONS (at Coventry).

Coventry.—Foleshill-rd., Vauxhall House, f.	1,175
2, Lockhurst-la. (s.), f.	250
5, Ford-st., f.	510
2, 4, and 6, Harnall-la. West, u.t. 76 yrs., g.r. 2*l.* 10s.	440

February 2.—By FRED VARLEY & SON.

Holloway.—24, Mayton-st., u.t. 51 yrs., g.r. 5*l.* 5s., e.r. 34*l.*	235

February 3.—By STIMSON & SONS.

Wandsworth.—25, Tonsley-rd., u.t. 53¾ yrs., g.r. 3*l.* 3s., w.r. 29*l.* 18s.	175
Balham.—7, Shipka-rd., u.t. 67½ yrs., g.r. 7*l.*, y.r. 30*l.*	200
Walworth.—38, Villa-st., u.t. 41½ yrs., g.r. 5*l.* 5s., w.r. 40*l.* 6s.	200
87, Inville-rd., u.t. 41 yrs., g.r. 4*l.* 15s., p.	220
Camberwell.—41, Grosvenor-ter., u.t. 31¼ yrs., g.r. 6*l.* 10s., y.r. 36*l.*	200
Herne Hill.—28, Shakespeare-rd., u.t. 55 yrs., g.r. 2*l.*, e.r. 36*l.*	225
Pimlico.—44 and 46, Bessborough-pl., u.t. 12½ yrs., g.r. 16*l.*, y.r. 60*l.*	215
Peckham.—316, Commercial-rd., u.t. 20¼ yrs., g.r. 6*l.*, w.r. 41*l.* 12s.	115

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. for public-house; o. for offices; s. for shops; ct. for court.

PRICES CURRENT OF MATERIALS.

***** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.**

BRICKS, &c.

Per 1000 Alongside, in River.

	£ s. d.
Best Stocks	1 8 0

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Picked Stocks for Facings	2 10 0	Best Red Pressed Ruabon Facing	5 0 0
Flettons	1 6 0	Best Blue Pressed Staffordshire	3 15 0
Best Fareham Red	3 12 0	Do. Bullnose	4 0 0

BRICKS, &c. (*continued*).

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Best Stourbridge Fire Bricks	3 14 0	Splays & Squints	15 17 6
GLAZED BRICKS.		Best Dipped Salt Glzd. Str'tch'rs	10 17 6
Best White and Ivory Glazed Stretchers	10 17 6	Headers	10 7 6
Headers	10 7 6	Quoins, Bullnose, and Flats	14 7 6
Quoins, Bull-nose, and Flats	14 7 6	D'ble Stretchers	16 7 6
D'ble Stretchers	16 7 6	Double Headers	13 7 6
Double Headers	13 7 6	One Side and two Ends	17 7 6
One Side and two Ends	17 7 6	Two Sides and one End	18 7 6
Two Sides and one End	18 7 6	Splays & Squints	15 17 6

Second Quality White and Dipped Salt Glazed, £1 fs. per 1000 less than best.

	s. d.	
Thames and Pit Sand	6	6 per yard delivered.
Thames Ballast	5	0 ,, ,,
Best Portland Cement	28	0 per ton, ,,
Best Ground Blue Lias Lime	19	0 ,, ,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 11s. 6d. per yard, delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly. dpt.

STONE.

Per Ft. Cube.

	s. d.
BATH STONE—delivered on road waggons, Paddington Depôt	1 6½
Do. do. delivered on road waggons, Nine Elms Depôt	1 8½
PORTLAND STONE (20 ft. average)—	
Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 1
White Basebed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 2½

Per Ft. Cube, Delivered at Railway Depôt.

	s. d.		s. d.
Ancaster in blocks	1 10	Red Corsehill in blocks	2 2
Beer in blocks	1 6	Closeburn Red Freestone	2 0
Greenshill in blocks	1 10	Red Mansfield Freestone	2 4
Darley Dale in blocks	2 4		

YORK STONE—*Robin Hood Quality.*

	s. d.
Scappled random blocks	2 10

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3
6 in. rubbed two sides ditto, ditto	2 6
3 in. sawn two sides slabs (random sizes)	0 11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 7½
1½ in. to 2 in. ditto, ditto	0 6

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	3 0

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 8
6 in. rubbed two sides ditto	3 0
3 in. sawn two sides slabs (random sizes)	1 2
2 in. self-faced random flags	0 5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£ s. d.	In. In.	£ s.
20×10 best blue Bangor	13 2 6	20×10 best Eur'ka unfading green	15 17 6
20×12 ditto	13 17 6	20×12 ditto	18 7 6
20×10 1st quality ditto	13 0 0	18×10 ditto	13 5 0
20×12 ditto	13 15 0	16×8 ditto	10 5 0
16×8 ditto	7 5 0	20×10 permanent green	11 12 6
22×10 best blue Portmadoc	12 12 6	18×10 ditto	9 12 6
16×8 ditto	6 12 6	16×8 ditto	6 12 6

TILES.

At Railway Depôt.

	s. d.		s. d.
Best plain red roofing (per 1000)	42 0	Best "Rosemary" brand plain (per 1000)	48 0
Hip and Valley per doz.)	3 7	Best Ornamental (per 1000)	50 0
Best Broseley (per 1000)	50 0	Hip (per doz.)	4 0
Do. Ornamental (per 1000)	52 6	Valley (per doz.)	3 8
Hip and Valley (per doz.)	4 0	Best "Hartshill" brand, plain sand-faced (per 1000)	50 0
Best Ruabon red, brown, or brindled (Edw'ds) (per 1000)	57 6	Do. pressed (per 1000)	47 6
Do. Ornamental (per 1000)	60 0	Do. Ornamental (per 1000)	50 0
Hip (per doz.)	4 0	Hip (per doz.)	4 0
Valley (per doz.)	3 0	Valley (per doz.)	3 6
Best Red or Mottled Staffordshire do. (Peakes) (per 1000)	51 9	Staffords. (Hanley) Reds or Brindled (per 1000)	42 6
Do. Ornamental do. (per 1000)	54 6	Hand-made sand-faced (per 1000)	45 0
Hip (per doz.)	4 1	Hip (per doz.)	4 0
Valley (per doz.	3 8	Valley (per doz.)	3 6

WOOD.

BUILDING WOOD.	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 0 0	... 15 10 0
Deals: best 3 by 9	13 10 0	... 14 10 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11 10 0	... 12 10 0
Battens: best 2½ by 6 and 3 by 6	0 10 0	... less than 7 in. and 8 in.
Deals: seconds	1 0 0	less than best.
Battens: seconds	0 10 0	...
2 in. by 4 in. and 2 in. by 6 in.	9 10 0	... 10 10 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	... 10 0 0

WOOD (*continued*).

BUILDING WOOD (*continued*)—	At per standard. £ s. d.	£ s. d.
Foreign Sawn Boards—		
1 in. and 1¼ in. by 7 in.	0 10 0	more than batten.
¾ in.	1 0 0	"
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 5 0 0	... 5 10 0
Seconds	4 10 0	... 5 0 0
Small timber (8 in. to 10 in.)	3 17 6	... 4 0 0
Small timber (6 in. to 8 in.)	3 5 0	... 3 10 0
Swedish balks	2 12 6	... 3 0 0
Pitch-pine timber (30 ft. average)	4 10 0	... 5 5 0

JOINERS' WOOD.	At per standard. £ s. d.	£ s. d.
White Sea: first yellow deals, 3 in. by 11 in.	24 10 0	... 25 10 0
3 in. by 9 in.	22 10 0	... 23 10 0
Battens, 2½ in. and 3 in. by 7 in.	17 0 0	... 18 0 0
Second yellow deals, 3in. by 11 in.	19 0 0	... 20 0 0
" " 3 in. by 9 in.	18 0 0	... 19 10 0
Battens, 2½ in. and 3 in. by 7 in.	14 0 0	... 15 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14 0 0	... 15 0 0
Battens, 2½ in. and 3 in by 7 in.	1 10 0	... 12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21 10 0	... 22 10 0
Do. 3 in. by 9 in.	18 10 0	... 19 10 0
Battens	14 0 0	... 15 0 0
Second yellow deals, 3 in. by 11 in.	16 10 0	... 17 10 0
Do. 3 in. by 9 in.	15 0 0	... 16 0 0
Battens	11 10 0	... 12 10 0
Third yellow deals, 3 in. by 11 in.	13 10 0	... 14 10 0
Do. 3 in. by 9 in.	13 0 0	... 14 0 0
Battens	10 10 0	... 11 0 0
White Sea and Petersburg—		
First white deals, 3 in. by 11 in.	15 0 0	... 16 0 0
" " 3 in. by 9 in.	14 0 0	... 14 10 0
Battens	11 10 0	... 12 10 0
Second white deals, 3 in. by 11 in.	14 0 0	... 15 0 0
" " 3 in. by 9 in.	13 0 0	... 14 0 0
Battens	10 10 0	... 11 0 0
Pitch-pine: deals	19 0 0	... 21 0 0
Under 2 in. thick extra	0 10 0	... 1 0 0
Yellow pine—First, regular sizes	44 0 0	upwards.
Oddments	32 0 0	"
Seconds, regular sizes	33 0 0	"
Oddments	28 0 0	"
Kauri Pine—Planks, per ft. cube	0 3 6	... 0 5 0
Danzig and Stettin Oak Logs—		
Large, per ft. cube	0 3 0	... 0 3 9
Small " "	0 2 6	... 0 2 6
Wainscot Oak Logs, per ft. cube	0 5 6	... 0 6 0
Dry Wainscot Oak, per ft. sup. as inch	0 0 8½	... 0 0 9½
¾ in. do. do	0 0 7	... —
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch	0 0 10	... 0 1 1
Selected, Figury, per ft. super as inch	0 1 6	... 0 2 6
Dry Walnut, American, per ft. super. as inch	0 0 10	... 0 1 0
Teak, per load	18 0 0	... 22 0 0
American Whitewood Planks, per ft. cube	0 4 0	... 0 5 0

Prepared Flooring, etc.—	Per square. £ s. d.	£ s. d.
1 in. by 7 in. yellow, planed and shot	0 13 6	... 0 17 0
1 in. by 7 in. yellow, planed and matched	0 14 0	... 0 18 0
1¼ in. by 7 in. yellow, planed and matched	0 16 0	... 1 0 0
1 in. by 7 in. white, planed and shot	0 12 0	... 0 14 6
1 in. by 7 in. white, planed and matched	0 12 6	... 0 15 0
1¼ in. by 7 in. white, planed and matched	0 15 0	... 0 16 6
¾ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0 11 0	... 0 13 6
1 in. by 7 in. " "	0 14 0	... 0 18 0
¾ in. by 7 in. white " "	0 10 0	... 0 11 6
1 in. by 7 in. " "	0 12 9	... 0 15 0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	7 0 0	... 7 10 0
Compound Girders, ordinary sections	9 0 0	... 10 0 0
Steel Compound Stanchions	11 0 0	... 12 0 0
Angles, Tees, and Channels, ordinary sections	9 0 0	... 10 0 0
Flitch Plates	9 0 0	... 9 10 0
Cast Iron Columns and Stanchions including ordinary patterns	7 10 0	... 8 10 0

METALS.

IRON—	Per ton, in London. £ s. d.	£ s. d.
Common Bars	8 10 0	... 9 0 0
Staffordshire Crown Bars, good merchant quality	8 15 0	... 9 5 0
Staffordshire "Marked Bars"	10 10 0	... —
Mild Steel Bars	8 15 0	... 9 5 0
Hoop Iron, basis price	9 5 0	... 9 10 0
" " Galvanised	17 0 0	... —

(*And upwards, according to size and gauge.)

Sheet Iron Black—		
Ordinary sizes to 20 g.	9 15 0	... —
" " 24 g.	10 15 0	... —
" " 26 g.	12 5 0	... —
Sheet Iron, Galvanised, flat, ordinary quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	... —
Ordinary sizes to 22 g. and 24 g.	15 10 0	... —
" " 26 g.	16 10 0	... —
Sheet Iron, Galvanised, flat, best quality—		
Ordinary sizes to 20 g.	18 0 0	... —
" " 22 g. and 24 g.	18 10 0	... —
" " 26 g.	20 0 0	... —

METALS (*continued*).

IRON (*continued*)—	Per ton, in London. £ s. d.		£ s. d.
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	14 10 0	...	—
" " 22 g. and 24 g.	14 15 0	...	—
" " 26 g.	16 5 0	...	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12 0 0	...	—
Best Soft Steel Sheets, 22 g. & 24 g.	13 0 0	...	—
" " " 26 g.	15 0 0	...	—
Cut Nails, 3 in. to 6 in.	10 10 0	...	11 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.	Per ton, in London. £ s. d.		
LEAD—Sheet, English, 4lb. and up.	17 0 0	...	—
Pipe in coils	17 10 0	...	—
Soil pipe	20 10 0	...	—
Compo pipe	20 10 0	...	—
ZINC—Sheet—	In casks of 10 cwt.		
Vielle Montagne	28 12 6	...	—
Silesian	28 5 0	...	—
Zinc, in bundles, 1s. per cwt. extra.			
COPPER—			
Strong Sheet per lb.	0 1 0	...	—
Thin "	0 1 1	...	—
Copper nails "	0 0 10	...	—
Copper wire "	0 0 10	...	—
BRASS—			
Strong Sheet "	0 0 11	...	—
Thin "	0 1 0	...	—
TIN—English Ingots "	0 1 6	...	—
SOLDER—Plumbers' "	0 0 7	...	—
Tinmen's "	0 0 9	...	—
Blowpipe "	0 1 0	...	—

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

15 oz. thirds	2¼d.	26 oz. fourths	3d.
" fourths	1¾d.	32 oz. thirds	4¾d.
21 oz. thirds	3d.	" fourths	4¼d.
" fourths	2¾d.	Fluted Sheet, 15 oz.	3¾d
26 oz. thirds	4d.	" 21 oz.	4¼d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

⅛ Hartley's	2¼d.	Figured, Oxford Rolled, & 'Oceanic' Glass, white	3¼d.
¼ "	2¼d.		
⅜ "	2¼d.	Ditto, tinted	5d.

OILS, &c.		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 2 11
" " " in barrels	"	0 3 0
" " " in drums	"	0 3 3
Boiled " " in barrels	"	0 3 3
" " " in drums	"	0 3 6
Turpentine in barrels	"	0 3 4
" in drums	"	0 3 6
Genuine Ground English White Lead	per ton	20 10 0
Red Lead, Dry	"	20 0 0
Best Linseed Oil Putty	per cwt.	0 7 6
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.	Per gallon. £ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursday*. [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is stated, nor any list in which the lowest Tender is under 100*l.* unless in some exceptional cases and for special reasons.]

* Denotes *accepted*. † Denotes *provisionally accepted*.

BRIDLINGTON.—For erecting a villa, Marine Drive for Mr. A. J. Osgerby. Mr. Allen W. Wilson, architect and surveyor, Cumbergate, Peterborough:—

T. Gray, Bridlington* £1,000

CARLISLE.—For painting, colouring, etc., at the covered markets, for the Corporation. Mr. H. C. Marks, M.Inst.C.E., City Engineer and Surveyor, 36, Fisher-street, Carlisle:—

Ling & Mark, Carlisle* £387

DARTFORD.—For secondary school for girls (to accommodate 250 children), for the Kent Education Committee. Mr. W. H. Robinson, Architect to the Committee:—

Pethick Bros.	£10,999	A. S. Ingleton	£9,180
J. T. Jarvis & Sons	10,540	R. G. Lowe & Co.	9,139
S. E. Moss & Co.	9,765	Thomas & Edge	9,100
G. H. Gunning & Sons	9,642	G. E. Wallis & Sons, Ltd.	9,074
J. & M. Patrick	9,585	F. G. Foster	8,998
B. E. Nightingale	9,480	J. Podger & Son	8,900
C. E. Skinner	9,392	J. Parren & Sons	8,899
T. Knight	9,309	J. W. Ellingham	8,840
F. Webster & Son	9,219	W. F. Blay, Ltd.	8,677
W. Wallis, Ltd.	9,195	Friday & Ling, Northend Works, Erith	8,500
Spencer Santo & Co., Ltd.	9,186		

EXMOUTH.—For new general post-office and shops, Rolle-street. Mr. Ernest E. Ellis, architect, Exeter and Exmouth:—

Yeo & Sons	£5,798	Brealy	£4,668
Stephens & Bastow	5,792	Cooper & Son	4,390
H. J. Gay Lang	5,780	Hayman, Exmouth*	4,322
Lacey	5,250	Gluyas	4,300
Wilkins	4,775		

EXMOUTH.—For alterations and additions to the Exeter-road Council Schools, for Devon County Education Committee. Mr. P. Morris, Architect (Education), 1, Richmond-road, Exeter. Quantities by Mr. S. W. Haughton, 22, Courtenay-street, Plymouth:—

Wakeham Bros.	£1,994 0 0	N. Pratt	£1,703 12 7
G. Setter & Son	1,892 0 0	F. J. Stanbury	1,640 12 0
Pethick Bros., Ltd.	1,836 0 0	Cooper & Son	1,639 11 0
		W. H. Perry, Exmouth*	1,615 12 0

HERNE BAY.—For paving, etc., (a) the Broadway, (b) South Cliff Drive, for the Urban District Council. Mr. F. W. J. Palmer, C.E., Surveyor to the Council, Herne Bay:—

S. H. Head	£3,995	Hardy & Co., Woking*	£3,170
P. Furley	3,978		
Ingleton Bros.	3,797		

[The two streets were taken in the aggregate.]

KINGSBRIDGE.—For laying 900 lineal yds. of 4-in. and 1,100 lineal yds. of 3-in. water main, for the Urban District Council. Mr. H. M. Monson, A.M Inst.C.E.:—

J. Fisher	£1,951	T. Doney	£728
J. Weston	959	Steer & Pearce	685
J. Blackler, jun.	867	T. Shaddock	667
W. S. Smith	845	W. C. Shaddock, Plymouth*	641
Brebner & Co.	810		

LLANWRTYD WELLS.—For new boarding-house at Llanwrtyd Wells, for Mrs. Job. Mr. W. D. Jenkins, A.R.I.B.A., architect and chartered surveyor, George-street, Llandilo, S. Wales:—

D. Howells & Son, St. Clears, Carmarthen* £1,270

[Lowest tender received out of sixteen.]

LONDON.—For extending the low pressure hot water heating apparatus, Essendine-road school, Paddington, N., for the London County Council:—

F. W. Brock	£825	Brightside Foundary and Engineering Co., Ltd.	£549
Stevens & Sons	655	W. G. Cannon & Sons, Ltd.	545
Turner & Co., Ltd.	650	R.H.& J. Pearson, Ltd.	544
W. J. Burroughes & Sons	620	G. & E. Bradley, Lever-street, E.C.*	533
H. J. Cash & Co., Ltd.	564		
Cannon & Hefford	561		

[The estimate of the Architect, comparable with the tenders, is £552.]

LONDON.—For the erection of conveniences, Plumstead Common, for the London County Council:—

W. Bickerton	£233 10	F. & G. Foster	£166 10
J. & C. Bowyer, Ltd.	232 0	A. & F. Polden	166 5
R. A. Lowe & Co.	228 0	H. Line, 81, Peckham-rye, S.E.*	148 0
R. Harding & Son	224 10	Sycamore Works, Ltd.	97 0
Kirk & Randall	193 0		
W. H. Hyde & Co.	170 0		

[The estimate, comparable with the tenders, is £190.]

LONDON.—For electric lighting, Poplar divisional offices, Bow and Bromley, for the London County Council:—

British Westinghouse Electric and Manufacturing Co, Ltd.	£198 13 8
Stegmann & Co.	152 14 6
Tilley Bros.	148 10 0
G. Weston & Sons	143 0 0
Johnson & Phillips, Ltd.	136 0 0
Sweet Bros.	134 0 0
E. Newbald & Co., Court-road, Sutton*	133 0 0

LONDON.—For providing and fixing two boilers and a low-pressure hot-water heating apparatus, and for the necessary builders' work in connexion therewith, for the school on the Torriano-avenue site, St. Pancras, for the London County Council:—

Turner & Co., Ltd.	£785 0	A. Macintosh & Sons, Ltd.	£644 8
J. Wontner-Smith, Gray, & Co.	679 0	J. & F. May	620
Comyn Ching & Co., Ltd.	679 0	Ashwell & Nesbitt, Ltd.	557 0
J. F. Phillips & Son	672 0	Palowkar & Sons, 90 and 91, Queen-street*	542 0
Stevens & Sons	652 0		
Purcell & Nobbs	645 0		

[The estimate of the architect, comparable with the tenders, is £575.]

LONDON.—For iron building, London County Council Camden School of Art, Islington, N.:—

Humphreys, Ltd.	£667	W. Harbrow, South Bermondsey station*	£567
J. Harrison & Co.	657		
J. McManus	590		

[The Architect's revised estimate, comparable with the tenders, is £560].

LONDON.—For formation of a playground, William-street, Fulham, for the London County Council:—

B. Finch & Co., Ltd.	£962	J. & W. Drake	£693
T. Bendon, Ltd.	837	J. Garrett & Son	672
Chinchen & Co.	798	Lole & Co.	666
G. Neal	760	E. Triggs, The Chase, Clapham*	644
A. Roberts & Co., Ltd.	740		

[The Architect's estimate, comparable with the tenders is £750.]

LONDON.—For construction of authorised tramways from Brockley-road to Forest Hill for the London County Council:—

A. N. Coles	£54,275 8 6
W. Manders	45,428 11 9
Kirk & Randall	41,804 0 0
Dick, Kerr, & Co., Ltd.	41,748 16 9
J. Mowlem & Co., Ltd., Westminster, S.W.*	39,792, 0 0

[The Chief Engineer's estimate comparable with the tenders is £42,607 1s. 2d.]

Messrs. J. Mowlem & Co., Ltd., to sublet (i.) to the Associated Portland Cement Manufacturers, Ltd., and Martin, Earle & Co., Ltd., the Portland cement; (ii.) to the Anderston Foundry Co., Ltd., and Wilsons, Pease, & Co., Ltd., the cast iron; (iii.) to Bayliss, Jones, and Bayliss, Ltd., and Guest, Keen, & Nettlefolds, Ltd., the wrought iron; (iv.) to Callender's Cable and Construction Co., W. T. Henley's Telegraph Works Co., Ltd., and the Western Electric Co., Ltd., the jumper cable; (v.) to Hadfields Steel Co., Ltd., the cast steel; (vi.) to the Forest City Electric Co., Ltd., and the Lahmeyer Electrical Co., Ltd., the copper bonds; and (vii.) to Bullers, Ltd., and the Royal Doulton Potteries, the porcelain bushes for insulators.

LONDON.—For travelling cranes, central car repair depot (second section), for the London County Council:—

Babcock & Wilcox, Ltd.	£2,585 0 0
Royce, Ltd.	2,576 0 0
T. Broadbent & Sons	2,536 0 0
Ransomes & Rapier, Ltd.	2,490 0 0
Applebys, Ltd.	2,412 10 0
S. H. Heywood & Co., Ltd. (second alternative)	2,437 0 0
S. H. Heywood & Co., Ltd. (alternative)	2,325 0 0
S. H. Heywood & Co., Ltd. Reddish*	2,285 0 0

[The estimate of the Chief Officer of Tramways comparable with the tenders is £2,400.]

Messrs. S. H. Heywood & Co., Ltd. to sublet (i.) to Dorman, Long, & Co., Ltd., and The Cargo Fleet Iron Co., Ltd, the rolled steel sections; (ii.) to William Shaw & Co., the steel castings; (iii.) to Henry Hollingdrake & Son, the iron castings; (iv.) to the British Westinghouse Electric and Manufacturing Co., Ltd., or the Electric Construction Co., Ltd., the motors; (v.) to Eckstein, Heap, & Co., Ltd., or the British Westinghouse Electric and Manufacturing Co., Ltd., or W. T. Glover & Co., Ltd., the cables; and (vi.) to R. Johnson & Nephew, Ltd., the overhead line.

LONDON.—For works to roofs of bullock lairs at the Metropolitan Cattle Market, for the Corporation:—

Croggon & Co., Ltd.	£490	F. Braby & Co., Ltd.*	£442
Treggon & Co., Ltd.	448		

MARLOW.—For cemetery works, for the Urban District Council. Mr. C. S. Vardy, architect, Clivedon-chambers, Maidenhead. Quantities by the architect:—

Childs & Townsend	£1,012 12 6	Silver & Sons	£648 0 0
C. H. Hunt & Son	707 0 0	A. F. Taylor	628 0 9
F. W. Newbery	692 0 0	T. J. Lovell & Son	618 0 0
C. E. Plumridge	669 9 6	C. Jefferson	610 0 0
C. W. Cox & Sons	666 0 0	Keates & Gill	555 0 0
		R. H. Harris & Marlow*	525 0 0

MARRICK.—For pulling down and re-erecting a dwelling-house at Marrick, near Reeth, Swaledale, for Mr. J. Blenkiron. Mr. F. Martin, architect, 2, Prebend-row, Darlington:—

J. Irwin, Reeth, near Richmond, Yorkshire £250

[For labour only.]

CHISWICK.—For making-up parts of Airedale-avenue and Beverley-road, for the Urban District Council. Mr. E. Willis, A.M.Inst.C.E., Surveyor, Town Hall, Chiswick:—

	Airedale-avenue (Contract No. 1).			Airedale-avenue and Beverley-road Junction (Contract No. 2).			Beverley-road (Contract No. 3).		
Nature of Paving	Croft.	Excelsior.	Atlas.	Croft.	Excelsior.	Atlas.	Croft.	Excelsior.	Atlas.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
F. G. Brummell	477 17 1	477 17 1	477 17 1	91 13 6	91 13 6	91 13 6	199 12 1	199 12 1	199 12 1
Clements, Knowling, & Co.	587 0 0	597 0 0	597 0 0	107 0 0	109 0 0	109 0 0	267 0 0	276 0 0	276 0 0
H. J. Greenham	564 0 0	575 0 0	575 0 0	103 0 0	105 0 0	105 0 0	259 0 0	264 0 0	264 0 0
John Mowlem & Co., Ltd.	487 14 5	483 11 5	487 14 5	87 17 1	87 13 6	87 17 1	196 7 2	194 15 0	196 7 2
G. Wimpey & Co., Hammersmith	‡455 0 0	455 0 0	455 0 0	‡94 0 0	94 0 0	94 0 0	‡182 0 0	182 0 0	182 0 0
T. Williams	490 0 0	490 0 0	490 0 0	100 0 0	100 0 0	100 0 0	230 0 0	230 0 0	230 0 0

‡ Recommended for acceptance.

MILNTHORPE.—For erecting a police station, for the Standing Joint Committee of the Westmorland County Council. Mr. J. Bintley, County Surveyor and Architect, 7, Lowther-street, Kendal:—

Mason, etc.: N. C. Scott, Milnthorpe ....
Joiner, etc.: M. Sisson, Leasegill, Milnthorpe
Plumbing, Painting, and Glazing: W. Thompson, Milnthorpe ..... } £1,022 14 0
Plastering: Woodburn & Storey, Kendal ..

MINSTER.—For erecting an attendants' room at the workhouse, for the Isle of Thanet Guardians. Mr. G. L. Butterworth, architect:—

Paramors, Ltd. ..	£142 0	C. A. Edmonds....	£81 0
G. J. Attwood & Co.	129 0	G. J. Terry	78 10
J. W. Woodall & Son	112 10	J. F. Pettman, St. Nicholas-at-Wade*	76 11
G. H. Pettman & Co.....	99 14		

MINSTER-IN-SHEPPEY.—For the erection of a school to accommodate 100 children, Minster-in-Sheppey Halfway Houses Council school, for Kent Education Committee. Plans prepared by the Committee's Architect, Mr. W. H. Robinson:—

West Bros.	£1,539	Hancock & Kettle..	£1,299
S. Wise	1,500	Kemp Bros.	1,298
C. Gates & Sons ..	1,389	T. Monk	1,276
L. Seager	1,379	W. J. Norris	1,274
G. E. Wallis & Sons, Ltd.....	1,377	W. Owen.....	1,250
G. Browning	1,360	G. Baker & Son	1,233
A. S. Ingleton	1,327	C. E. Skinner	1,226
W. & L. Bowes	1,319	E. Bishop & Sons, Albany-road, Sittingbourne* ..	1,212
I. A. Davison.....	1,300		

MORLEY.—For extension of mill premises, Perseverance Mills, for Messrs. A. Marshall & Son, Ltd. Mr. T. A. Buttery, architect, Queen-street, Morley, and 1, Basinghall-square, Leeds:—

Mason: H. Spensley, High-street, Morley..... £406 11
Joiners: H. Spensley, High-street, Morley 439 0
Plumbers: J. W. Stakes, Queen-street, Morley.. 21 5
Slaters: G. Rogerson, Bank-street, Morley 50 0
Ironfounders: Newsome, Askham, & Co., Anchor Foundry, Batley..... 66 10

OAKHAM.—For erecting new offices, for the Education Committee, Rutland County Council. Mr. H. F. Traylen, A.R.I.B.A., 16, Broad-street, Stamford:—

Willmott & Sons	£774 0 0	Hockley & Co..	£641 13 10
Roberts Bros..	725 0 0	J. Peasgood ..	634 0 0
Rudd & Son ..	700 0 0	E. E. Howes ..	624 0 0
S. F. Halliday	693 0 0	G. W. Brown ..	597 0 0
W. Bell & Sons	689 0 0	Nichols Bros...	595 4 0
Hinson & Co...	664 0 0	W. Higgs & Sons	587 11 9
G. Edlington ..	663 0 0	J. Hickman ..	549 7 0
J. Woolston ..	650 0 0	J. Hibbitt, Oakham*	538 16 6
Bowman & Sons	649 0 0		

[Architect's estimate, £580.]

OKEHAMPTON.—For erecting a new higher elementary school for 120 children, with laboratory, etc. (designed for future use as a secondary school), for Devon County Education Committee. Mr. Percy Morris, County Architect (Education), 1, Richmond-road, Exeter. Quantities by Mr. Bruce Dawson, 6, Old Queen-street, Westminster, London, S.W.:—

W. Ball & Son	£4,443 11 11
Pethick Bros., Ltd.	4,442 0 0
W. E. Bennett	4,205 0 0
F. J. Stanbury	4,134 5 8
C. Bryer, jun.....	4,070 12 6
J. Crockerell	4,047 0 11½
H. Harris & Co.....	3,950 0 11
J. Paynter	3,942 5 0
J. J. Sleeman & Son.....	3,840 13 3
Blatchford & Dawe, Okehampton*	3,797 16 6

OSWESTRY.—For additions and alterations to house, Cae Glas, for the Town Council. Mr. G. William Lacey, C.E., Borough Engineer and Surveyor, Guildhall, Oswestry:—

J. Higgins	£216 10 8	W. H. Thomas..	£198 0 0
Jones & Evans..	213 4 8	W. Felton*	179 10 0

[All of Oswestry.]
[Borough Engineer's estimate, £200.]

OSWESTRY.—For additions and alterations to buildings for conveniences, shelters, etc., at Cae Glas Park, for the Town Council. Mr. G. William Lacey, C.E., Borough Engineer and Surveyor, Guildhall, Oswestry:—

J Higgins	£318 17 3	W. Felton.....	£277 10 0
Jones & Evans..	297 19 5	W. H. Thomas*	268 12 0

[All of Oswestry.]
[Borough Engineer's estimate, £268.]

OYSTERMOUTH.—For 529 lineal yds. of stoneware sewer, for the Urban District Council. Mr. W. Phippen Puddicombe, P.A.S.I., Surveyor and Engineer, Council Offices, Mumbles:—

Bennett Bros..	£509 10 8	Parkinson & Hodgens	£404 10 8
D. Jenkins, Ltd.	496 8 10	Barnes & Chaplin, St. Peter's-street, Cardiff*	383 17 8
R. Lacey	466 16 3		
J. G. Morris ..	438 8 4		

RICHMOND (Surrey).—For constructing new sewers and roads on the Red Lion-street area, for the Town Council. Mr. J. H. Brierley, Borough Surveyor, Town Hall, Richmond:—

T. W. Pedrette	£2,421 4 1
Acme Flooring & Paving Co., Ltd..	2,300 5 10
Hamilton's	2,298 14 9
T. Watson	2,190 0 0
T. Adams.....	2,165 13 3
G. Wimpey & Co.	1,995 0 0
Jarman & Co.	1,979 0 0
S. Kavanagh & Co.....	1,926 11 6
J. Mowlem & Co., Ltd., Grosvenor Wharf, Westminster, S.W.*	1,867 0 0

[Borough Surveyor's estimate, £2,085.]

SPURSTOW (near Tarporley).—For alterations and additions to the school buildings, for Cheshire County Council Education Department (Administrative Sub-Committee for the Nantwich Union Area). Mr. H. Beswick, County Architect. Newgate-street, Chester:—

J. Morrey.....	£842 10	Reece Bros	£473 0
T. Astles	518 10	J. T. Gresty & Sons	470 0
G. Brookes	510 0	F. M tthews	460 0
Cox & Vaughan ..	480 0	C. Parker, Beeston*	420 0
G. Wright & Sons	480 0		

TERRINGTON ST. CLEMENTS.—For alterations and additions to house, for Mr. Thos. Croot. Messrs. Walker & Walker, architects and surveyors, Wisbech, and at Terrington and King's Lynn:—

Dickerson Bros.	£451 17 6	G. Clarke'.....	£348 10 0
Johnson & Son	432 15 0	R. Eggleton....	337 0 0
G. J. West	395 0 0	H. Rilett, Terrington, King's Lynn*	336 11 6
Tash & Langley	380 0 0		
S. Hampton ..	375 0 0		
H. W. Barnes ..	375 0 0	C. E. Green	332 13 0
P. Bone	363 0 0	J. Holman	309 0 0
G. Hornigold ..	361 8 0		

THORNABY-ON-TEES.—For new street works, for the Corporation of Thornaby. Mr. Chas. T. Johnson, A.M.Inst.C.E., Borough Engineer, Town Hall, Thornaby-on-Tees. Quantities by Engineer:—

A. E. Hobbs	£180 16 6
O'Doherty & Son, Stockton-on-Tees*	180 13 1

WANSTEAD.—For making-up Martha-road (second part) and Drummond-road, for the Urban District Council. Mr. C. H. Bressey, Surveyor to the Council:—

	Martha-road.	Drummond-road.
T. Adams	£428 0 0	£346 0 0
G. Anderson	394 0 0	323 0 0
G. Bell & Sons	419 0 0	349 0 0
W. & C. French	370 0 0	305 0 0
B. W. Glenny	362 2 0	300 0 0
W. Griffiths & Co.....	384 2 6	309 12 2
D. T. Jackson	426 15 0	361 1 6
J. Jackson.....	410 0 0	345 0 0
W. Manders	379 0 0	315 0 0
J. Mowlem & Co.....	405 0 0	310 0 0
Parsons & Parsons	347 0 0	285 0 0
P. R. Paul.....	447 10 0	368 0 0
Surveyor's estimate.....	418 4 2	329 7 6

WATFORD.—For erecting a new warehouse, granary, etc., in Queen's-road, for Messrs. R. G. Norman & Sons. Mr. C. P. Ayres, architect, 6, The Parade, High-street, Watford:—

W. King & Sons	£943 17 9	C. Brightman & Son	£911 0 0
C. Eames	935 0 0	G. Wiggs & Sons	900 0 0
Clifford & Gough	935 0 0	J. L. Tyler	898 10 0
W. & D. Wilkins	925 0 0	Ensor & Ward*	893 0 0
Bracey & Clark	920 0 0	Clark Bros.	887 10 0
H. Brown.....	917 0 0		

[All of Watford.]

WETHERBY.—For sewerage and sewage disposal works for the parishes of Braham-cum-Oglethorpe and Clifford, for the Rural District Council. Mr. E. J. Silcock, M.Inst.C.E., Sanctuary House, 11, Tothill-street, Westminster, and 10, Park-row, Leeds:—

Kell Bros., 15, Park-place, Leeds* .. £5,987 9 10

WESTBURY-ON-TRYM.—For new school buildings and additions to Burfield, for the Governors of the Red Maids' School, Bristol. Mr. F. W. Wills, F.R.I.B.A., 15, Orchard-street, Bristol. Quantities by Messrs. G. R. Tasker & Sons, 38, John-street, Bedford-row, W.C.:—

J. Perkins & Sons, Ltd.	£11,500	G. Humphreys & Son	£10,890
W. Cowlin & Son..	11,490	Martin & Son	10,849
C. A. Hayes & Son	11,359	E. Walters & Son..	10,567
R. F. Ridd & Sons	11,347	A. Dowling	10,478
E. Love.....	11,227	T. C. Glayas.....	10,400
E. Clarke & Sons..	11,188	R. Wilkins & Sons	10,384
Thomas & Son....	11,145	Stephens, Bastow, & Co., Ltd.*....	10,372
F. Chown	11,111		

[All of Bristol.]

WEYBRIDGE.—For the erection of a house in Oatlands-chase, Oatlands Park, Weybridge, for Mr. F. W. Smith. Messrs. Crickmay & Sons, architects and surveyors, 13, Victoria-street, Westminster, S.W., and Weymouth, Dorset:—

G. Jarvis	£2,029 18 0	W. A. Annett	£1,745 0 0
H. J. Nicholson	1,952 0 0	T. C. Ranger	1,621 17 6
C. Trask & Sons	1,885 0 0	Gaze & Sons, Walton - on Thames* ..	1,501 0 0
Hill & Son....	1,865 0 0		
Drowley & Co.	1,807 0 0		

WHITLEY BAY.—For laying-out and constructing streets on the Grosvenor Estate, for Whitley and Monkseaton Urban District Council. Mr. A. J. Rousell, A.M.Inst.C.E., Surveyor, Council Offices, Whitley Bay:—

J. McLaren..	£2,093 18 10	R. Fisher....	£1,550 13 8
F. E. Gully ..	1,938 14 11	M. D. Young, Newcastle*	1,532 3 2
R. Black	1,636 15 1		

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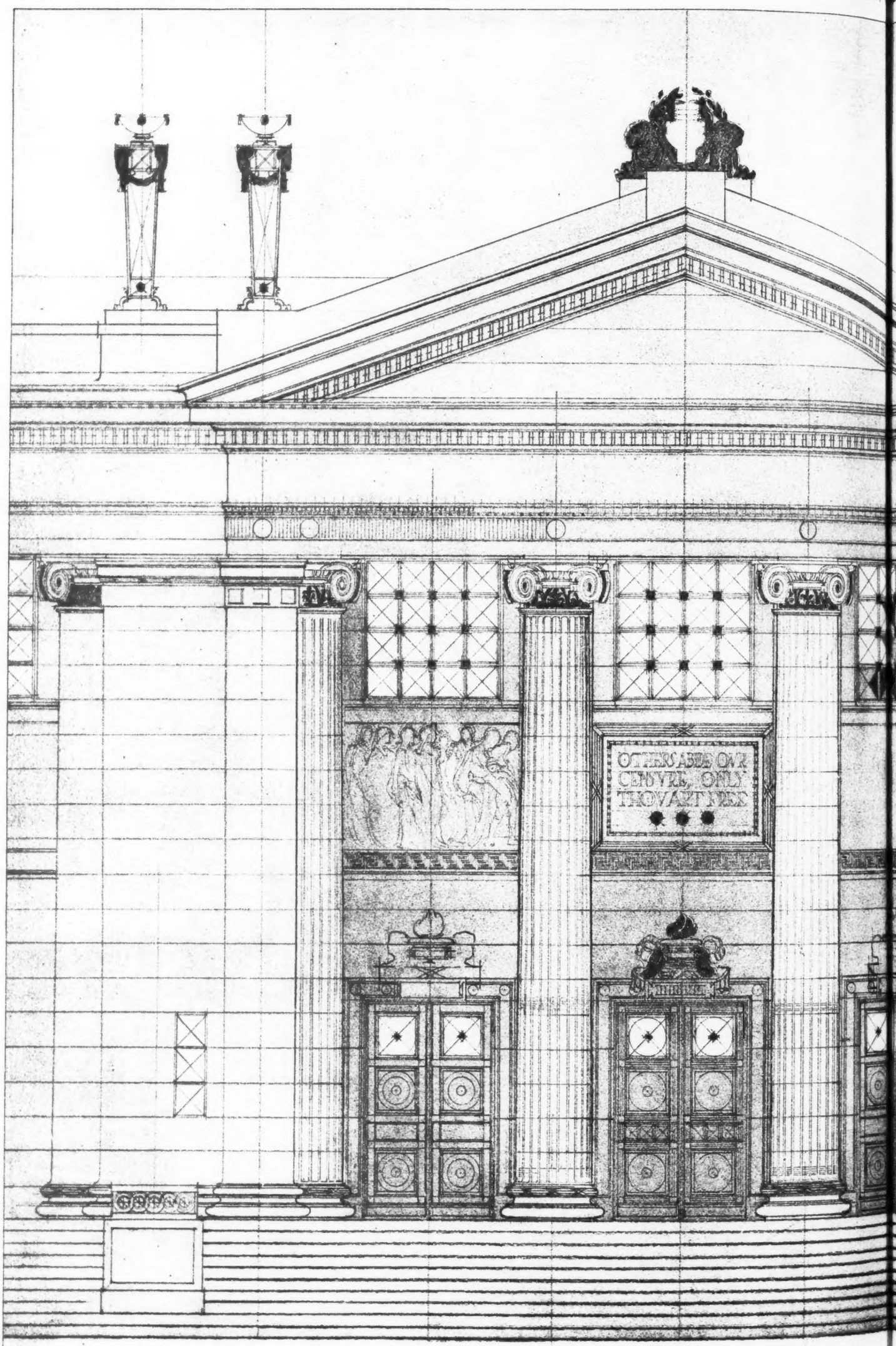

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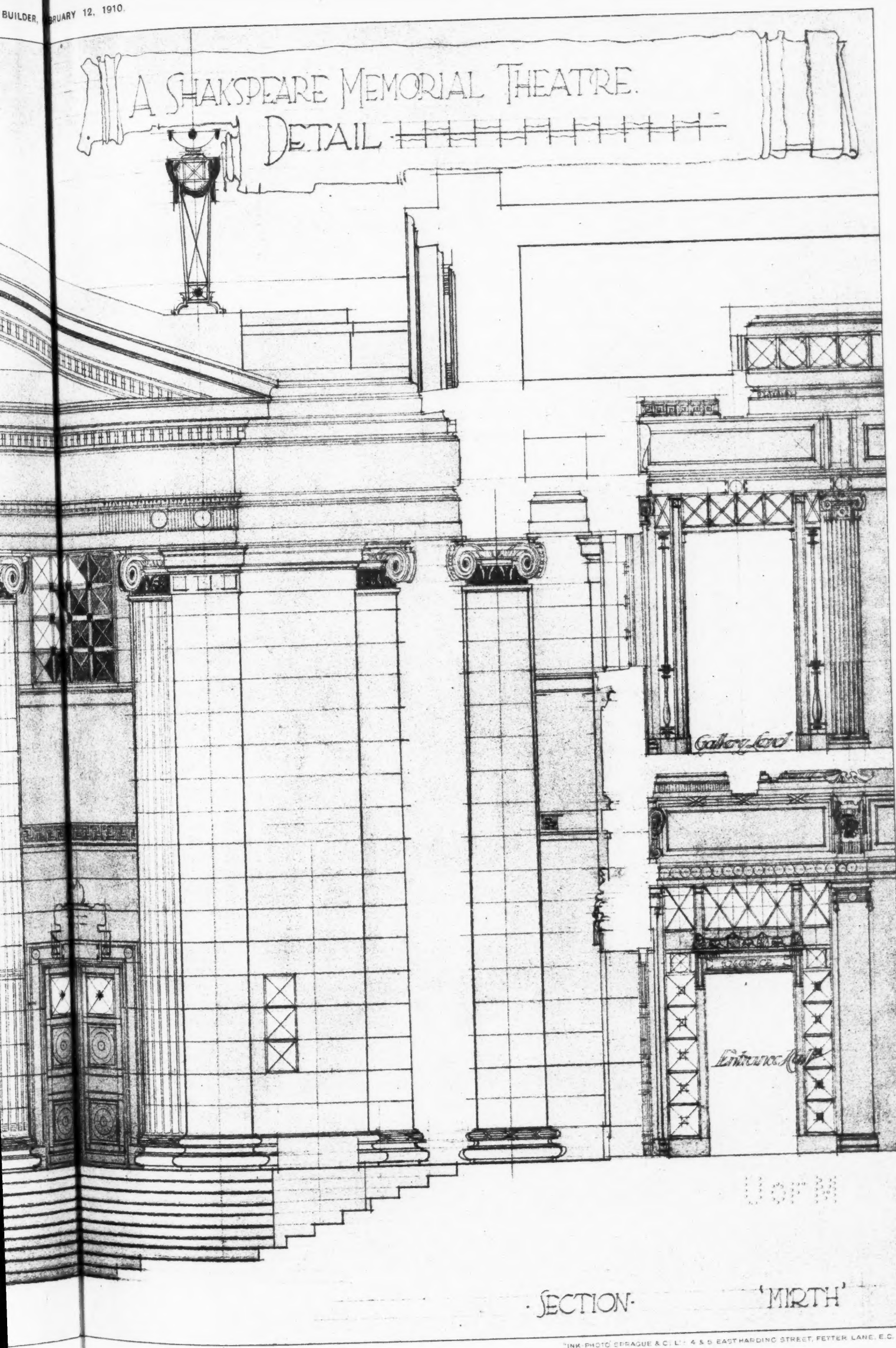

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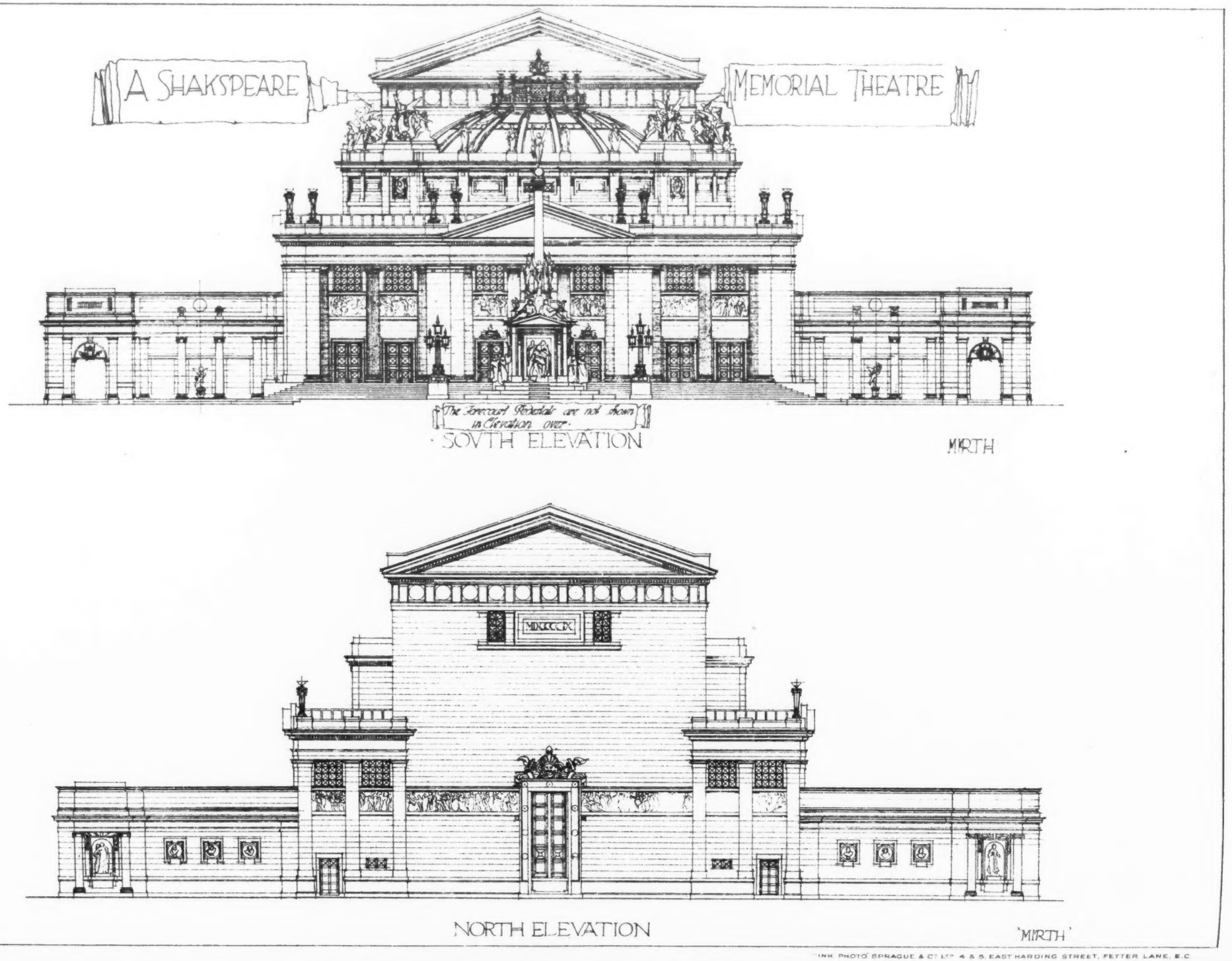

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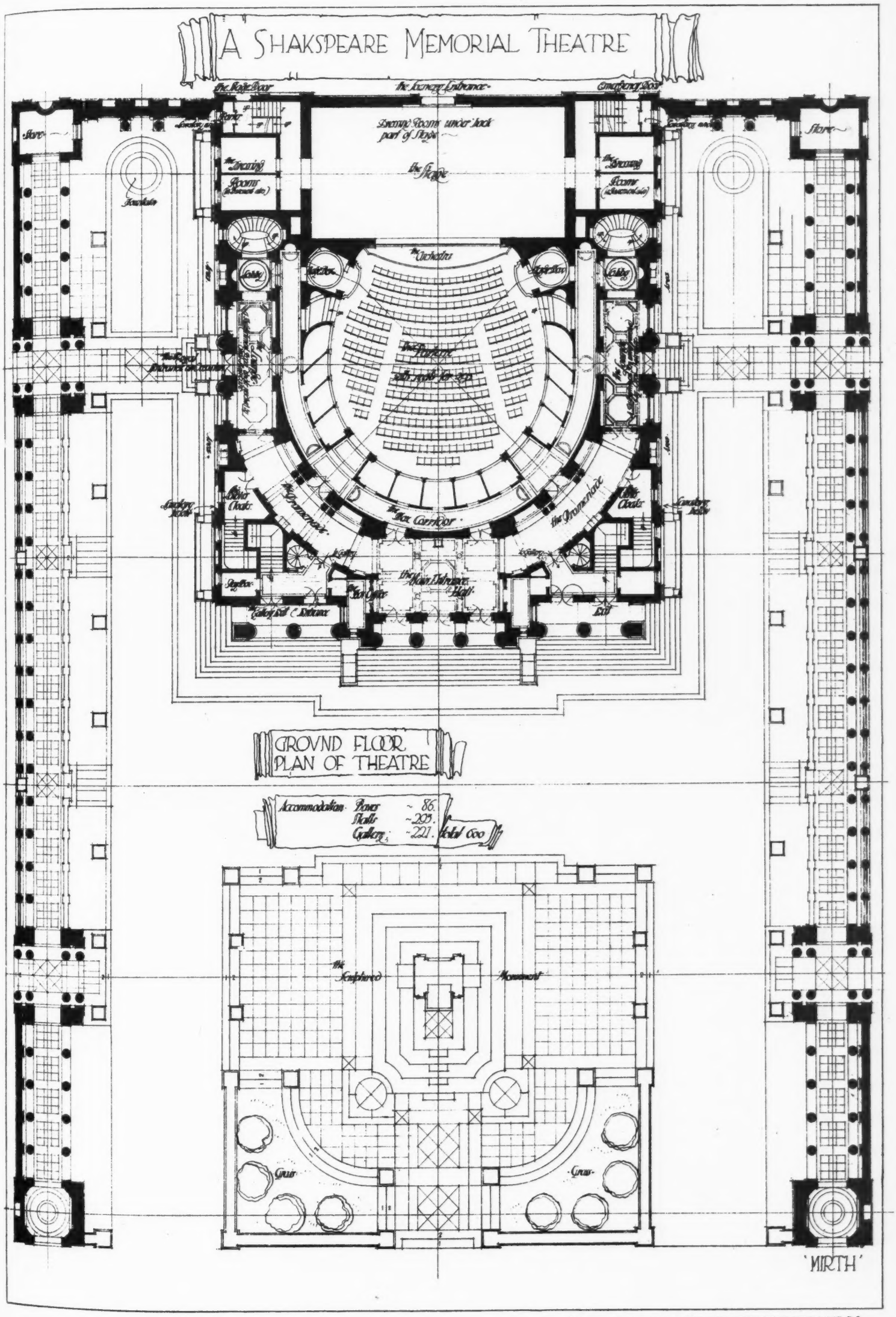

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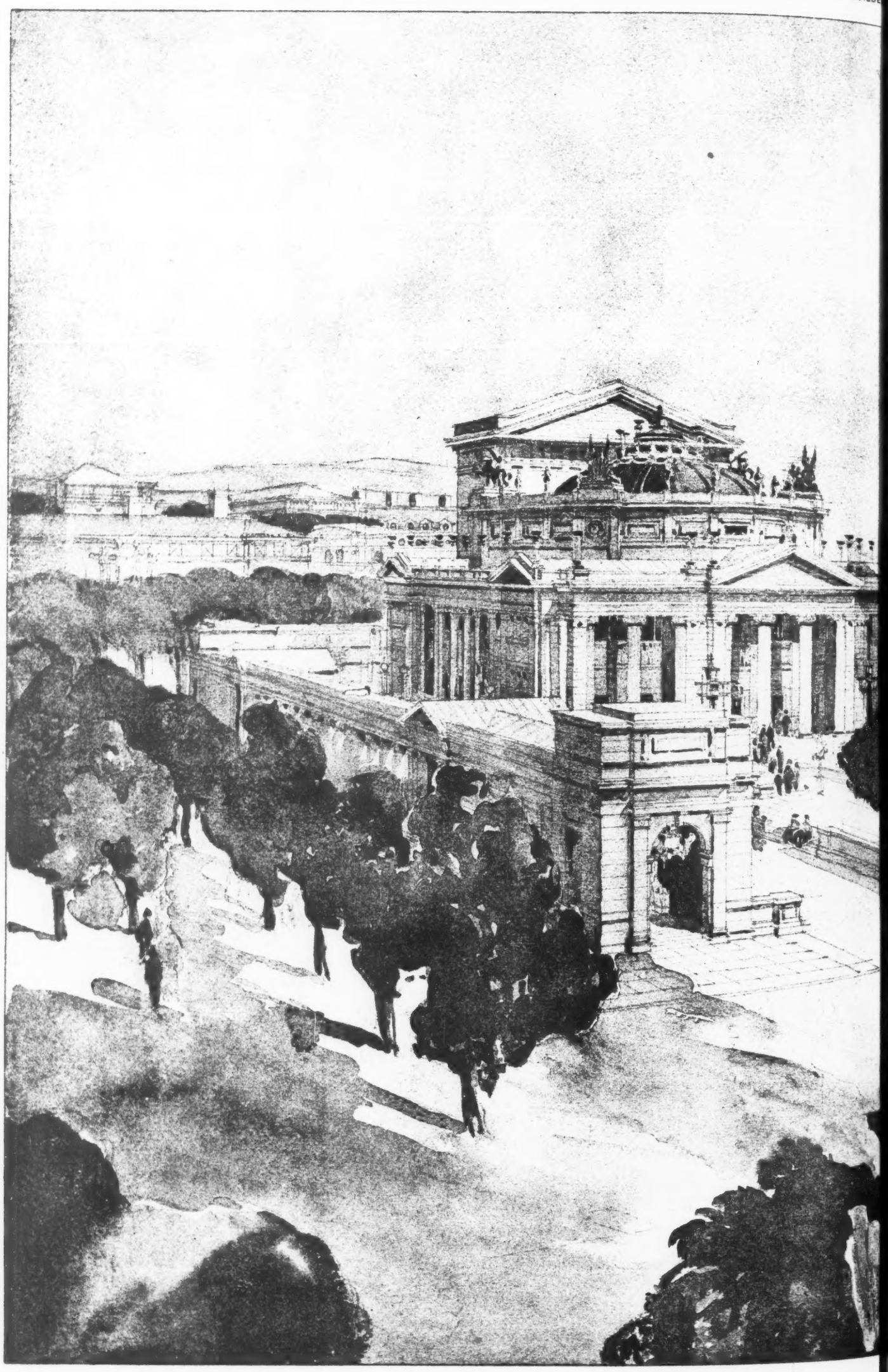

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